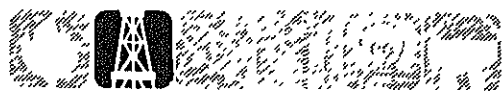


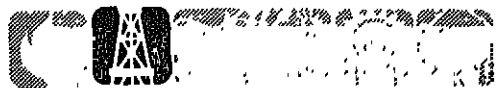
Petroleum Supply Monthly

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Washington, D.C. 20585

January 1983



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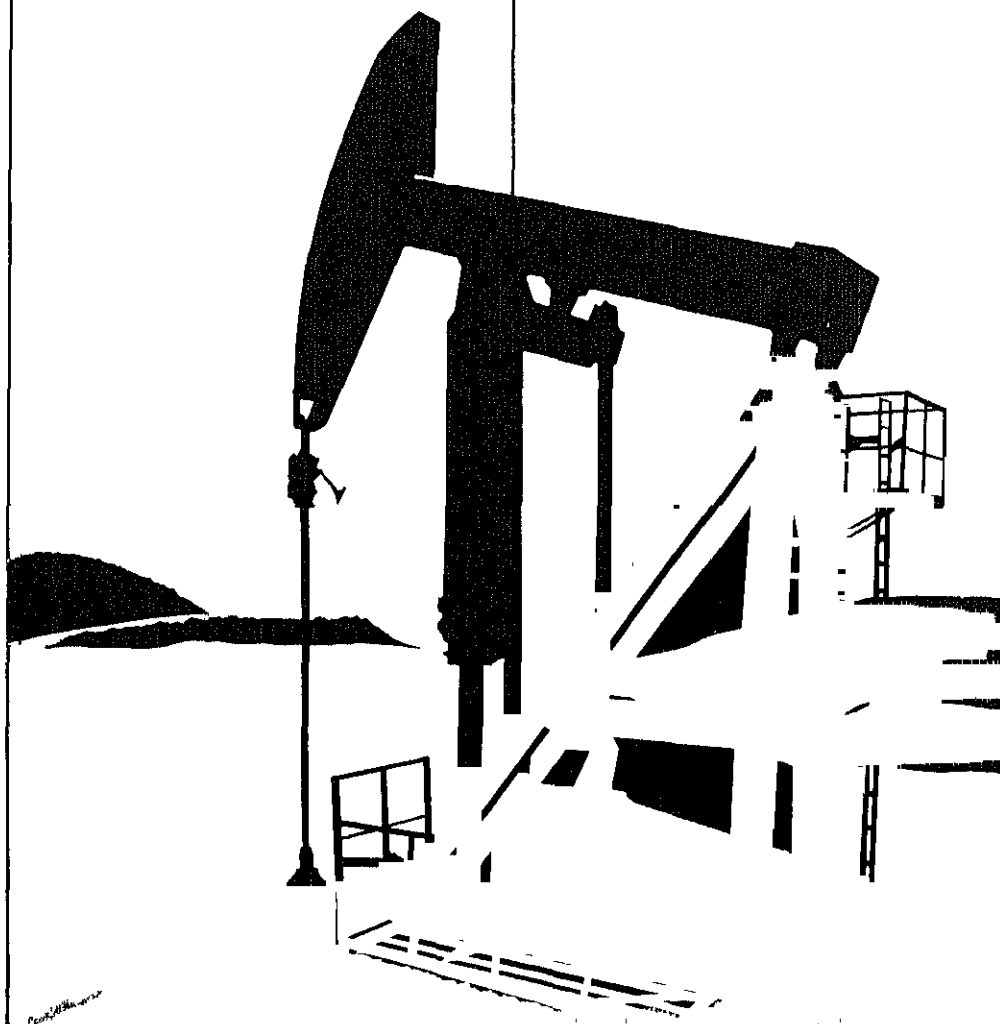


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January 1983

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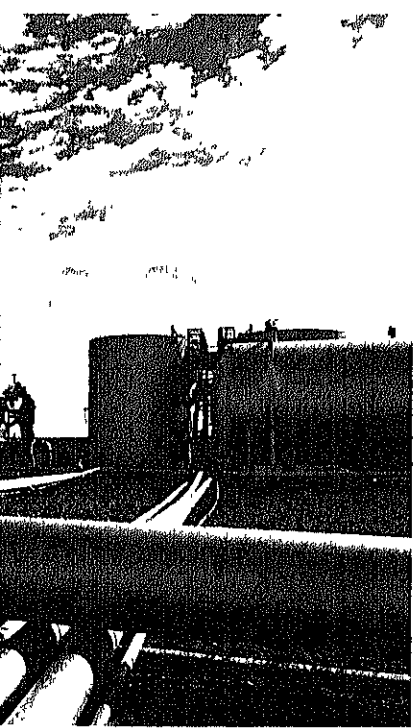
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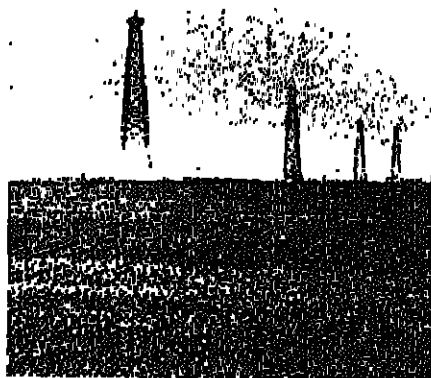
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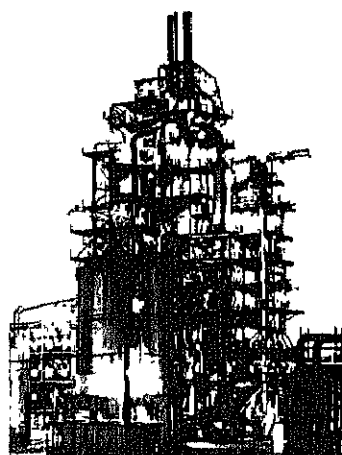
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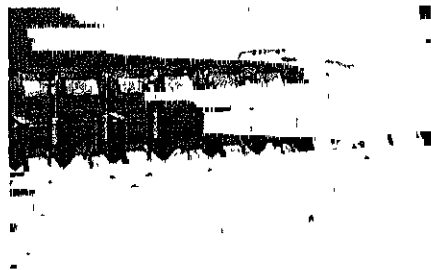


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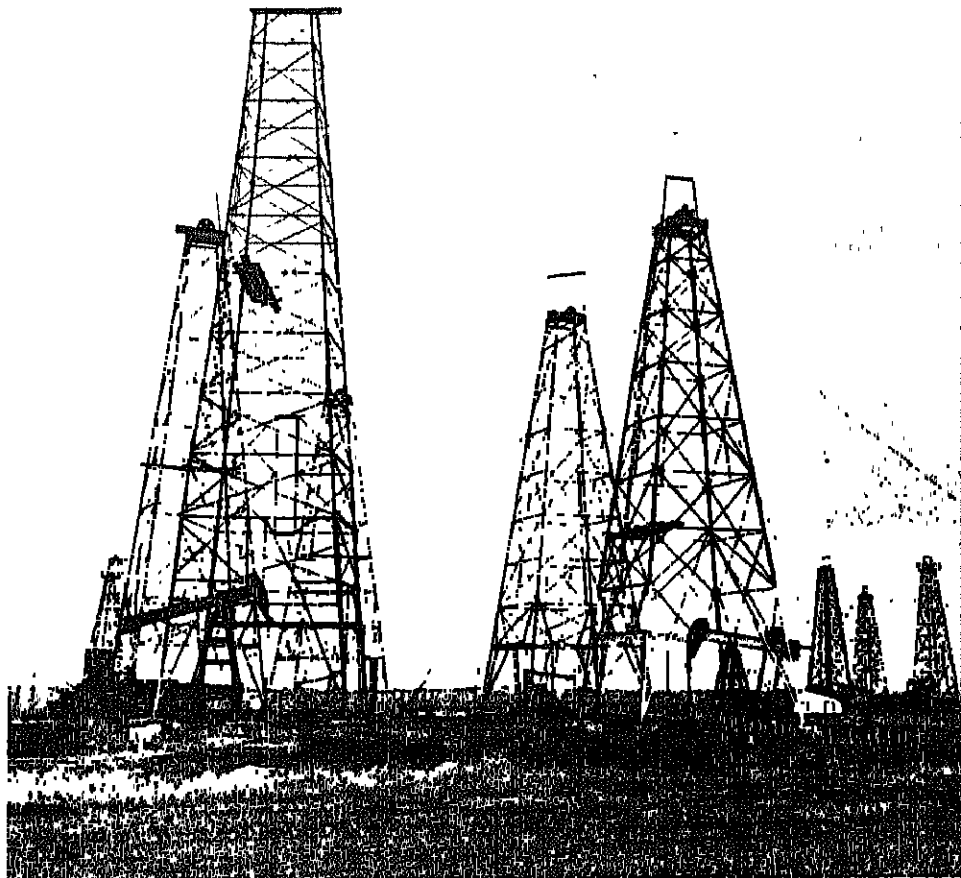
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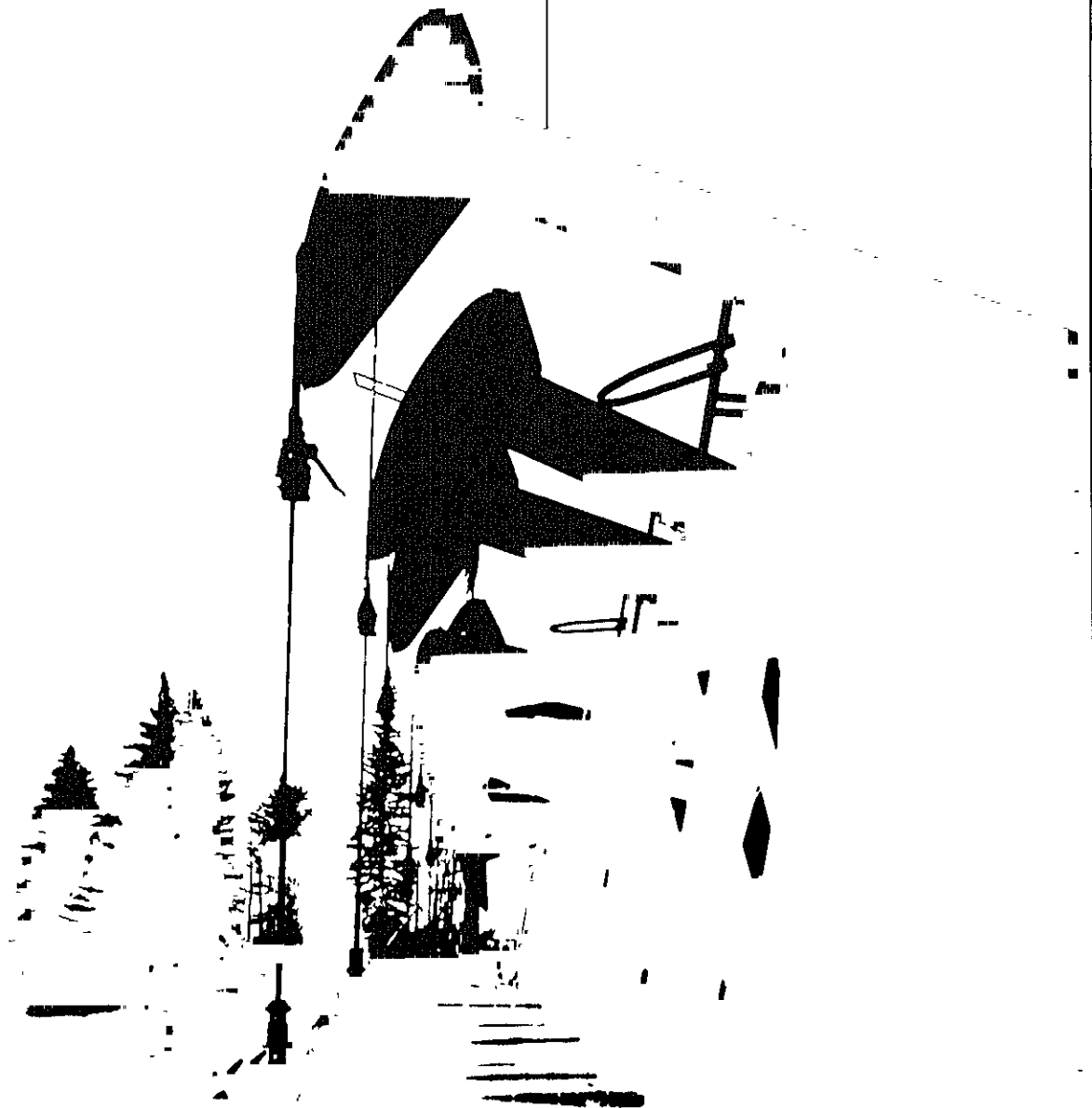
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Petroleum Focus



Petroleum Supply Summary

Average Volume for Period (Million Barrels Per Day)	December			Cumulative January Through December		
	1982	1981	% Change	1982	1981	% Change
Total Product Supplied	14.9	16.6	-10.3	15.2	16.1	-5.3
Motor Gasoline	6.2	6.7	-6.6	6.5	6.6	-1.2
Distillate Fuel Oil	2.8	3.2	-13.1	2.7	2.8	-5.7
Residual Fuel Oil	1.3	2.2	-42.4	1.7	2.1	-20.1
Crude Inputs to Refineries	11.8	12.3	-4.7	11.8	12.5	-5.4
Crude Oil and Natural Gas Liquids Production	10.3	10.2	1.2	10.2	10.2	0.4
Net Imports ¹	3.6	5.2	-30.8	4.2	5.4	-21.9
Net Crude Oil Imports ²	2.6	3.8	-30.8	3.1	3.9	-21.9
SPR Imports	0.1	0.2	-12.1	0.2	0.3	-34.8
Net Product Imports	0.8	1.2	-33.0	1.0	1.2	-19.4
Crude Oil Stock Withdrawal ³	(s)	0.08	—	0.03	0.05	—
Product Stock Withdrawal	0.20	0.75	—	0.24	0.13	—
Stocks at End of Period (Million Barrels)						
Crude Oil ²	354	363	-2.6			
Motor Gasoline ³	237	253	-6.4			
Distillate Fuel Oil	181	192	-5.6			
Residual Fuel Oil	68	78	-12.7			
Total Product	792	890	-11.0			
SPR	293	230	27.4			
Total	1,440	1,484	-3.0			

¹Gross imports of crude oil (including Strategic Petroleum Reserve) and petroleum products less exports of crude oil and petroleum products.

²Excluding Strategic Petroleum Reserve (SPR).

³Including blending components.

(s) Less than 5,000 barrels per day

Note: Percent changes are based on unrounded values. December 1982 data are estimates based on weekly data, except for export estimates which are November 1982 monthly values.

Source: Energy Information Administration, *Petroleum Supply Monthly*, January 1983.

U.S. Petroleum Developments: 1982

Petroleum developments in 1982 were characterized by continued declines in many areas:

- Imports and petroleum consumption continued to decline.
- Stocks of products declined sharply and remained low.
- Crude oil prices as well as retail and wholesale refined product prices fell.
- Refinery production and capacity declined.
- Drilling activity decreased substantially from the record peak in 1981.

Crude oil production and exports did not follow the downward trend. Crude oil production was virtually unchanged from the 1981 rate; while exports increased for the seventh consecutive year.

Petroleum Consumption

During 1982, petroleum consumption in the United States (measured as products supplied for domestic use) declined for the fourth consecutive year (see Figure 1). The average consumption of 15.2 million barrels per day, was about 900 thousand barrels per day lower than the 1981 average and was the lowest annual average for petroleum consumption since 1971. Even though prices fell, especially during the first quarter of 1982, consumption continued to drop as the economy weakened. Continued conservation efforts and fuel switching, induced by past sharp petroleum product price increases, also contributed to the decline, even though petroleum prices were generally lower during 1982 than during 1981.

Despite the continuing decline in consumption, petroleum remained the principal U.S. energy source. About 43 percent of the energy consumed in the United States during 1982 came from petroleum (see Figure 2). This percentage, which reached a peak at 49 percent in 1977, continued to drop as high petrole-

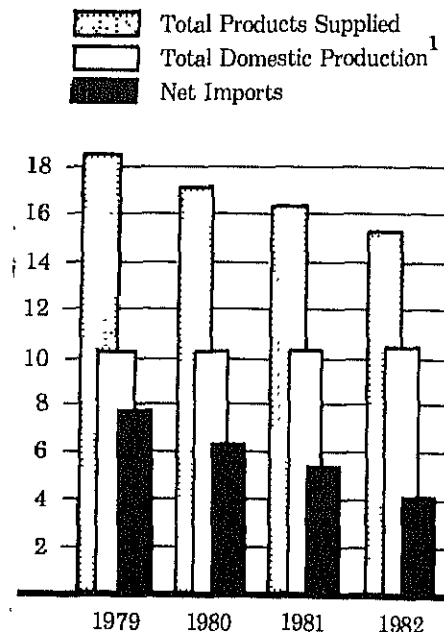
um prices and the relatively lower cost of using fuels such as natural gas and coal encouraged conservation by consumers and conversion to other fuels.¹

Motor gasoline supplied for domestic use averaged 6.5 million barrels per day during 1982, 12 percent below the average for 1978, the peak year of gasoline consumption and about 1 percent below that of 1981.² This decline occurred despite the fact that gasoline prices were lower throughout most of 1982 than those in 1981. Residual fuel oil and distillate fuel oil also showed large declines in consumption, down 20 percent and 15 percent, respectively, from their 1981 levels. Consumption of these and other major refined products generally declined.

¹Energy Information Administration, *Monthly Energy Review*, DOE/EIA-0035(82/1) (Washington, D.C., December 1982), p. 6.

²Energy Information Administration, *Petroleum Supply Monthly*, DOE/EIA-01(83/01) (Washington, D.C.: January 1983) 26.

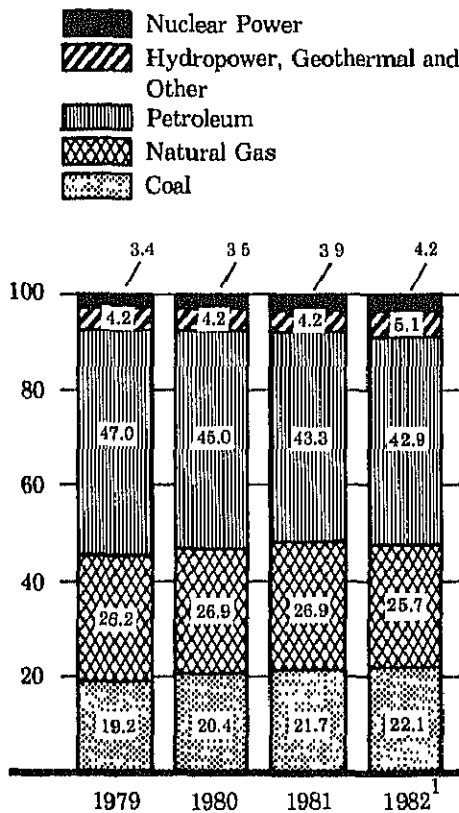
Figure 1. Petroleum Summary
(Million Barrels per Day)



¹Includes crude oil and natural gas plant liquid production.

Source: *Petroleum Supply Monthly*

Figure 2. Consumption of Energy by Type (Percent)



¹ Data for 1982 are for the months of January through September.

Source: Energy Information Administration, *Monthly Energy Review*, DOE/EIA-0035-(81/12), Washington, D.C., December 1982

creased by an average of 5 percent during the year (see Figure 3).³

Distillate fuel oil consumption, which averaged 2.7 million barrels per day in 1982, was about 6 percent below the average for 1981.⁴ The October 1982 price for home heating oil was approximately \$1.20 per gallon compared with the average price of approximately \$1.19 per gallon in October 1981.⁵

After decreasing nearly 17 percent between 1980 and 1981, residual fuel oil consumption continued to decline during 1982, averaging 1.7 million barrels per day, about 20 percent below the 1981 average.⁶ The average retail price per barrel, excluding tax, of residual fuel oil in the first 10 months of 1982 was \$29.16, more than 10 percent below the average price for 1981.⁷ That the decline

in consumption came at a time when prices were falling indicates the impact of the sluggish economy on industrial users, the second largest consumers of residual fuel oil (Electric utilities are the largest consumers).

Fuel-switching by electric utilities and industrial plants also contributed to the decline in residual fuel oil consumption. During 1981, the costs of generating electricity were significantly higher than in 1980, leading utilities burning residual fuel oil to

³*Petroleum Supply Monthly*, (January 1982) pp. 27, 32, and 36.

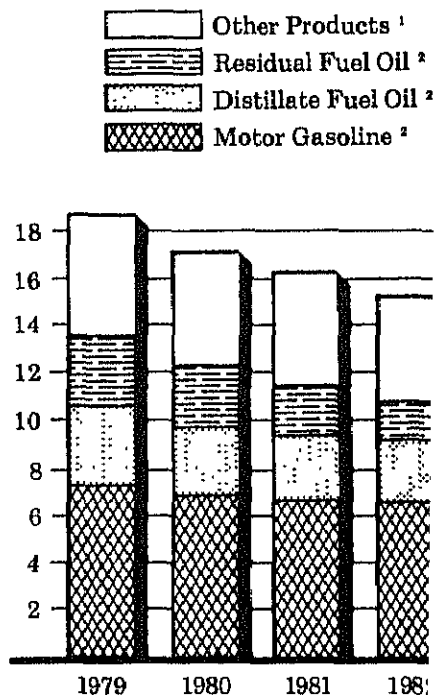
⁴*Petroleum Supply Monthly* (January 1982) p. 27.

⁵Energy Information Administration, *Monthly Petroleum Product Price Report*, DOE/EIA-0032 (82/10) (Washington, D.C., October 1982) Table 8.

⁶*Petroleum Supply Monthly* (January 1982) p. 32.

⁷*Monthly Petroleum Product Price Report* (October 1982) Table 3.

Figure 3. Petroleum Products Supplied for Domestic Use (Million Barrels per Day)



¹Other petroleum products include liquefied gases, jet fuels, and petrochemical stocks.

²Reflects recast 1979 and 1980 figures. See Explanatory Note 4.

Source: *Petroleum Supply Monthly*

for those burning coal and natural gas. The cost of burning residual fuel oil at steam electric utilities was \$5.29 per million British thermal units (Btu's), approximately three and a half times the cost of burning coal (\$1.53 per million Btu's) and nearly twice the cost of burning natural gas (\$2.83 per million Btu's).⁸

Refinery Operations

The total operable distillation capacity⁹ of petroleum refineries in the United States decreased by about 1.1 million barrels per day during 1982 as 52 refineries shut down. Refinery capacity had previously decreased by 451 thousand barrels per day as a result of refinery closings during 1981.¹⁰ The continued refinery closings are the result of a combination of factors including the decreased demand for petroleum products, market shifts, increased transportation costs, consolidation of refinery operations, and decontrol of crude oil prices.

U.S. refineries operated at about 70 percent of capacity in 1982, partly as a result of the same factors which caused so many refineries to close. Crude oil inputs to refineries averaged about 11.8 million barrels per day during the year, about 5 percent below the 1981 average.¹¹

Petroleum Stocks

Total petroleum stocks (excluding Strategic Petroleum Reserve stocks) decreased about 107 million barrels during 1982. About 98 million barrels of the decrease were in inventories of refined products.¹² The drawdowns reflect refiners' decisions to maintain lower inventories.

At the end of 1982, stock levels of most major products were well below the levels at the end of 1981. Distillate fuel oil inventories, at 181 million barrels, were 6 percent below the level at the end of 1981; residual fuel oil inventories, at 68 million barrels, were nearly 13 percent below the level at the end of 1981. Inventories of motor gasoline stood at 237 million barrels, about 6 percent below the level at the end of 1981.¹³ Even though inventories were at substantially lower levels at the end of 1982, supplies of petroleum products, and of

fuel oils in particular, were expected to be adequate to meet the anticipated lower demand for the winter of 1982-1983.

Imports

The downward trend in imports continued during 1982 as net imports (gross imports minus exports) of crude oil and petroleum products sank to an average of 4.2 million barrels per day, 22 percent below the average for 1981. During 1981, net imports averaged 5.4 million barrels per day, 15 percent below the level during 1980. Of the 1982 net import amounts, net crude oil imports averaged 3.2 million barrels per day, down 23 percent from 1981. Net imports of petroleum products averaged 1.0 million barrels per day, 19 percent below the annual average for 1981. The largest decline among petroleum product imports was in distillate fuel oil imports which were down 45 percent from 1981.¹⁴

Exports

Exports of petroleum products were about 200 thousand barrels per day, 57 percent higher during 1982 than during 1981. The growth in exports is attributable mainly to the relaxation of export restrictions. The increase was most noticeable in the residual fuel oil exports, which jumped by 94 thousand barrels per day and in exports of distillate fuel oil, which increased by 60 thousand barrels per day.¹⁵ For

⁸Energy Information Administration, *Cost and Quality of Fuels for Electric Utility Plants*, DOE/EIA-0191(81) (Washington, D.C., 1982) pp. 10, 14, 17.

⁹*Petroleum Supply Monthly*, (January 1983), p. G-5.

¹⁰*Petroleum Supply Monthly*, (June 1982), p. 8.

¹¹*Petroleum Supply Monthly* (January 1983) p. 23.

¹²*Petroleum Supply Monthly* (January 1983) p. 18.

¹³*Petroleum Supply Monthly*, (January 1983) pp. 26, 27, and 32.

¹⁴*Petroleum Supply Monthly*, (January 1983) pp. 19, 22, and 27.

¹⁵*Monthly Energy Review* (December 1982) pp. 31, 40, and 42.

several months during the year, the United States was a net exporter of distillate fuel oil. In those months, the volume of distillate fuel oil exported exceeded the volume imported.

Crude Oil Production

Domestic crude oil production averaged approximately 8.6 million barrels per day for the fourth consecutive year. However, because of the declines in crude oil prices and demand, drilling activity, which reached an all-time high in 1981, decreased substantially during 1982.

The average number of drilling rigs operating declined from 4,520 in December 1981 to 2,696 in December 1982, a 40 percent decline.¹⁶ During 1982, 85,855 new wells were completed. This was 7,317 wells above the number completed during 1981.¹⁷

The number of seismic crews operating peaked at 744 in September 1981 and began a decline which continued through 1982. By December 1982, the number had reached 477, the lowest level since March 1980.¹⁸

Prices

Most petroleum prices declined steadily through the first 4 months of the year including: average domestic wellhead

prices of crude oil, the composite refiner acquisition costs of domestic and foreign crude oil, the average wholesale and retail prices of diesel fuel and heating oil, the average wholesale prices of residual fuel oil and the average retail price for motor gasoline. By September the average domestic wellhead price of crude oil was \$28.08 per barrel, \$8.05 below that of one year earlier,¹⁹ and the average composite refiner acquisition cost in October was about 7 percent below the cost at the end of 1981. The average retail price of motor gasoline, at \$1.27 per gallon in November, was about 6 percent below the average price in November 1981.²⁰

The average price of residential heating oil, at \$1.20 per gallon, was about 1 percent higher than in October 1981.²¹

¹⁶Hughes Tool Company, *Rotary Rigs Running—By State* (December 1981-December 1982).

¹⁷American Petroleum Institute, *Report on Drilling Activity in the United States* (January 1981-December 1982).

¹⁸Society of Exploration Geologists, "SEC News Release," (January 1980-December 1982).

¹⁹*Monthly Energy Review* (December 1982) p. 80.

²⁰Energy Information Administration, *Weekly Petroleum Status Report*, DOE/EIA-0201 (83-01) (Washington, D.C.: January 21 1983), p. 17.

²¹*Weekly Petroleum Status Report*, (January 21, 1983), p. 17.

Trends in Petroleum Products Consumption, 1971-1982

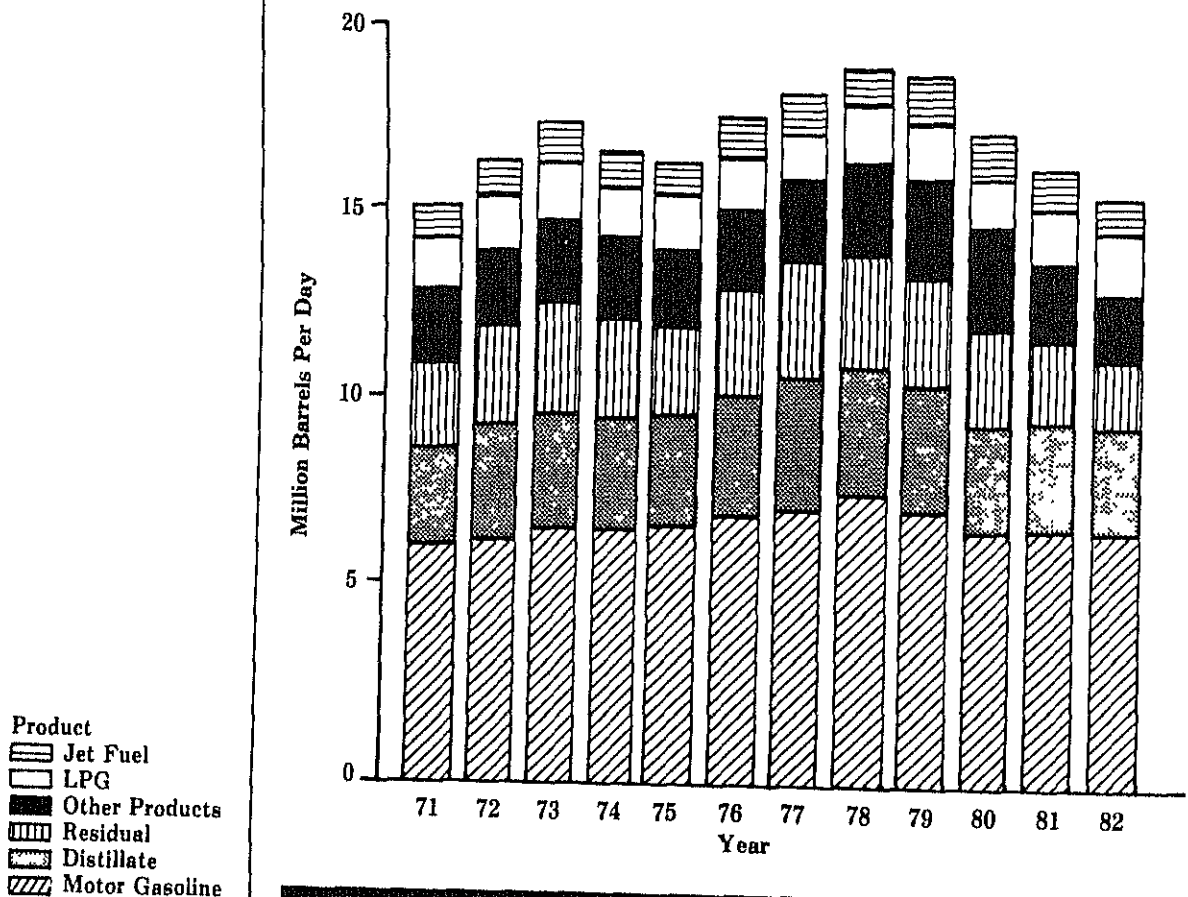
During 1982, consumption of petroleum products (measured as products supplied for domestic use) continued to decline as it has in each year since 1978. The average 1982 consumption of 15.2 million barrels per day was only slightly above the average during 1971.¹ Petroleum products consumption has varied since 1971 in reaction to crude oil and petroleum product price changes, to product availability, and to economic conditions. Petroleum product consumption increased from 1971 to 1973 as supplies were plentiful and prices were relatively low. Then, as a result of the Arab oil embargo and collective action of the Organization of Petroleum Exporting Countries (OPEC), prices of imported crude oil and petroleum products increased rapidly. These sudden price changes contributed significantly to an economic recession which ran from November 1973 through March 1975.

The recession, combined with higher prices, in turn contributed to decreases in petroleum consumption in 1974 and 1975.

Because of increased imports and stabilized prices, petroleum supplies (notably supplies of gasoline) were abundant in 1976, and average annual consumption of petroleum products jumped more than 15 percent from 1975 to 1978, when 18.8 million barrels per day were consumed, the largest amount ever. The record consumption in 1978 was again followed by shortages in 1979 and increasing world crude oil prices. The average refiner acquisition cost of imported crude oil jumped from nearly \$15

¹Energy Information Administration, *Petroleum Supply Monthly*, DOE/EIA-0109 (83/01) (Washington, D.C.: January 1983) p. 18.

Figure 4. Consumption of Major Petroleum Products: 1971 to 1982



Data Sources

The consumption data in this article are based on the State Energy Data System (SEDS), an EIA system that generates annual estimates of energy consumption by State and major end-use sectors. In the SEDS, State consumption of petroleum products is calculated by disaggregating national values using State sales or deliveries data. Complete documentation of the SEDS data sources and methodology is found in the EIA publication, *State Energy Data Report, 1960 through 1980*. This SEDS report is the source of consumption data presented in this article for the years 1971 through 1980, except where otherwise noted. The end-use sector consumption estimates for 1981 follow the SEDS methodology but use 1981 source data. Petroleum products consumption for 1982 is drawn from the products supplied information in the *Petroleum Supply Monthly*.

per barrel in December 1978 to approximately \$29 per barrel in December 1979 forcing up retail prices of petroleum products.² Petroleum consumers reacted to these dramatic price increases by switching to less costly fuels whenever possible and by reducing their consumption through conservation efforts. Since 1980, reduced industrial utilization, caused by the sluggish economy, combined with continued conservation and fuel switching has contributed to further declines in consumption of petroleum products.

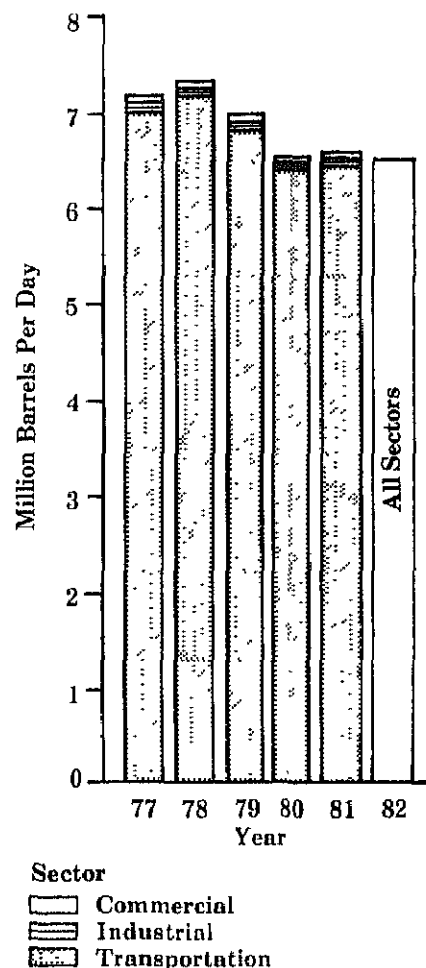
Trends in Consumption of Major Products

Since 1971, average annual consumption of motor gasoline, distillate fuel oil, and residual fuel oil combined has followed a pattern similar to that of total consumption (see Figure 4). Consumption of these products peaked in 1977 or 1978 and then declined. Consumption of residual fuel oil showed the most dramatic change over this period; it showed the greatest percentage increase among the major products and the most drastic decline. Consumption of liquefied petroleum gases (LPG) and of jet fuel, on the other hand, has been more stable during this period, showing no significant trend. Except for consumption of residual fuel oil, which was significantly lower, consumption of all of the major products during 1982 was either above or close to the amount of that product consumed in 1971.

Motor Gasoline

Motor gasoline consumption increased each year between 1971 and 1978 except 1974, the year after the Arab Oil Embargo. During 1978, motor gasoline consumption peaked at an average rate of 7.4 million barrels per day, about 23 percent higher than the 1971 level. Average annual consumption declined to 7.0 million barrels per day in 1979 and to 6.6 million barrels per day in 1980, a rate which continued through 1981 (see Figure 5). Consumption in 1982 averaged 6.5 million barrels per day, more than 12 percent below the peak consumption of 1978. However, because motor gasoline consumption remained relatively constant after 1980 while total petroleum product consumption declined, the motor gasoline portion of total consump-

Figure 5. Consumption of Motor Gasoline by End-Use Sector



tion increased to 43 percent in 1982. During most of the 1970's, motor gasoline's share ranged between 38 and 43 percent of total petroleum consumption.

During 1977, the first year that EIA collected unleaded motor gasoline data, annual consumption of unleaded motor gasoline averaged 2.0 million barrels per day, about 28 percent of all motor gasoline consumed that year. Since 1978, consumption of unleaded motor gasoline consumed that year.³ Since 1978, consumption of unleaded motor gasoline has increased significantly.

²Energy Information Administration, *Monthly Energy Review*, DOE/EIA-33(80) (Washington, D.C.: March 1980), p. 26.

³*Petroleum Supply Monthly* (January 1982), p. 26.

United States was unleaded. During 1982, unleaded gasoline consumption averaged 3.4 million barrels per day or about 52 percent of total motor gasoline consumption. The increase in consumption of unleaded motor gasoline was due to the increasing number of vehicles requiring unleaded gasoline (almost all of the automobiles currently manufactured for sale) and to the retirement of older cars which use leaded gasoline.

The fluctuations in total motor gasoline consumption are attributable in part to gasoline price increases, improved automobile efficiency, and changes in vehicle use patterns. Following the 1973 Arab Oil Embargo, when motor gasoline supplies became tight and gasoline prices increased, consumption declined slightly. By 1976, after consumers adjusted to these price increases and the supply of motor gasoline was again adequate, consumption rose as vehicle miles traveled increased. Then, in 1979, increases in the cost of imported crude oil caused gasoline prices to rise dramatically. By December 1981, the average price per gallon for all grades of gasoline was \$1.35,⁴ almost double the December 1978 price of \$0.69.⁵ Once more gasoline consumption fell as increased prices caused consumers to limit use of their vehicles. Continued improvements in fuel economy, which increased 15 percent from 1975 to 1981, also contributed to the reduction in consumption.

Distillate Fuel Oil

The pattern of distillate fuel oil consumption during the 1971-1982 period followed that of total petroleum more clearly than consumption of any other major product. During 1973, annual consumption of distillate fuel oil averaged 3.1 million barrels per day, 6 percent above the 1971 average. After decreasing slightly in 1974 and 1975, it climbed to 3.4 million barrels per day in 1978, 29 percent above the average for 1971 and 11 percent above the average for 1973. Since 1978, consumption of distillate fuel oil has decreased steadily (see Figure 6). During 1982, it averaged 2.7 million barrels per day, about the same as the 1971 average and more than 22 percent below the average for 1978 when distillate fuel oil consumption peaked.⁶

Increasing prices and conservation measures have contributed to declining use of distillate fuel oil by residences

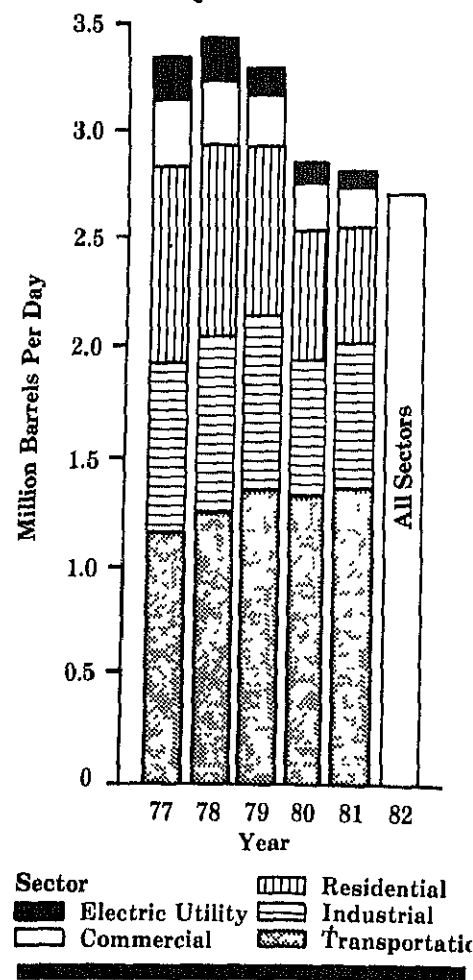
and commercial establishments (see Figures 6, 10, and 11) as their primary heating fuel. Industrial consumption has declined since 1979 because of stagnant economic conditions (see Figures 6 and 13). While these decreases were occurring, the importance of distillate fuel in the transportation sector increased (see Figures 6 and 14). The use of distillate fuel in on-highway vehicles (trucks, buses, and autos), as a low-sulfur bunker fuel for intercoastal shipping, and as a railroad fuel has offset the declining heating and industrial market for distillate fuel oils in recent years. As a result, the distillate percentage of total consumption has remained relatively constant at about 18 percent, even though its importance in different sectors of the economy has changed.

⁴Monthly Energy Review (March 1982), p. 1.

⁵Monthly Energy Review (March 1980), p. 1.

⁶Petroleum Supply Monthly (January 1983), p. 27.

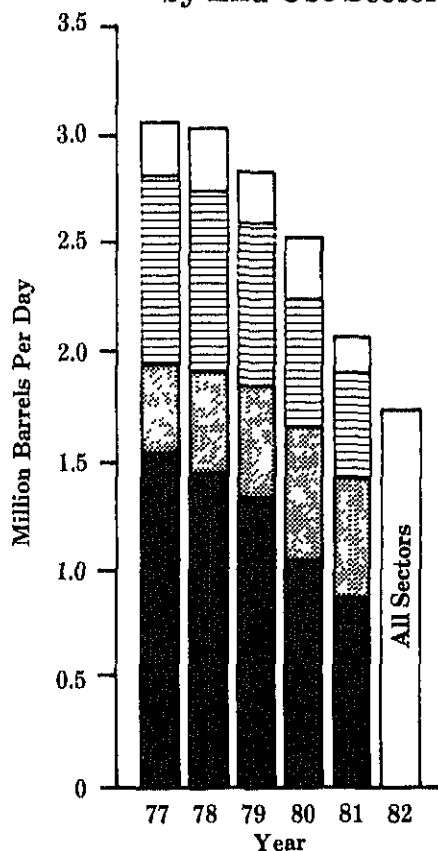
Figure 6. Consumption of Distillate Fuel Oil by End-Use Sector



Sector

- Electric Utility
- Commercial
- Residential
- Industrial
- Transportation

Figure 7. Consumption of Residual Fuel Oil by End-Use Sector



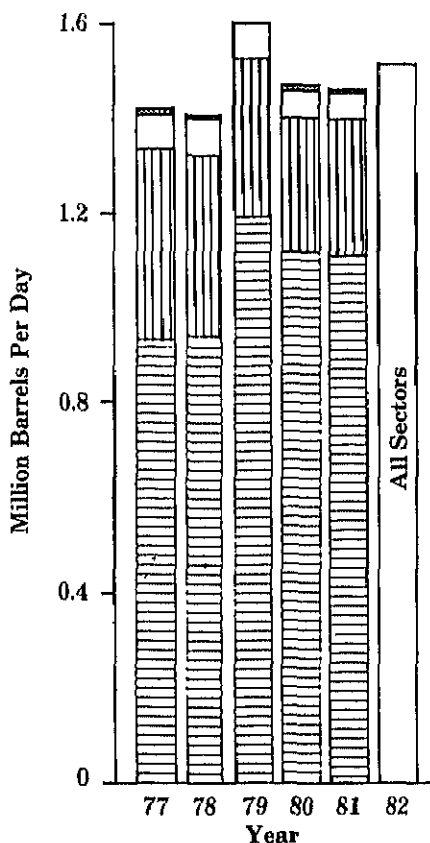
Residual Fuel Oil

The trend in residual fuel oil consumption differs somewhat from that of the other major products. Annual consumption of residual fuel oil peaked in 1977 at 3.1 million barrels per day. In 1977, consumption of residual fuel oil was almost 34 percent higher than in 1971, the largest percentage gain among the major products. At the same time, its share of total petroleum product consumption was also larger—15 percent in 1971 and almost 17 percent in 1977. Since 1977, average annual consumption of residual fuel oil has declined. In 1982, consumption of residual fuel oil averaged 1.7 million barrels per day, 24 percent below the 1971 average and 46 percent below the average for 1977. The share of total petroleum consumption represented by

residual fuel oil consumption was a lower in 1982 (11 percent) than in 1971 (15 percent).

Throughout most of this 12-year period the principal consumers of residual fuel oil were electric utilities and industrial plants. Consumption of residual fuel oil by electric utilities has declined since 1977 mainly because its price has increased in relation to that of coal and natural gas. The decreased utilization of manufacturing plants stemming from the stagnant condition of the economy has resulted in decreased industrial consumption of residual fuel oil (see Figure 7). The portion of residual fuel oil consumed by the transportation sector, however, expanded as consumption at utilities and in industry declined. Transportation represented only 13 percent of total residual fuel oil consumption in 1977, but by 1981 it accounted for 26 percent of the total, becoming the second largest end-use of residual fuel oil.

Figure 8. Consumption of Liquefied Petroleum Gases by End-Use Sector



Liquefied Petroleum Gases

Average consumption of liquefied petroleum gases (LPG) during 1982 was slightly more than 1.5 million barrels per day, an average that was higher than in any year except 1979 when LPG consumption reached almost 1.6 million barrels per day. Except for the drop during the recession year of 1975, consumption of LPG was relatively stable at slightly more than 1.4 million barrels per day from 1972 through 1978. During 1979 and 1981, average LPG consumption was slightly less than 1.5 million barrels per day.

Increased consumption of LPG in the industrial sector has more than offset declines in usage by the other sectors since 1978. Industrial use, primarily as raw materials in chemical manufactures, accounted for 76 percent of total LPG consumption in 1981 as opposed to 66 percent in 1977 (see Figure 8).

Jet Fuels

Consumption of jet fuels remained relatively constant between 1971 and 1979, varying between slightly less than 1.1 million barrels per day in 1974 and most 1.1 million barrels per day in 1979. In 1981, the level fell to 1.0 million barrels per day.

rels per day and remained at that level through 1982. The recent drop in consumption probably reflects reductions in air traffic brought on both by the controllers strike of 1981 and the depressed economic conditions during the past 2 years.

End-Use Sector Consumption

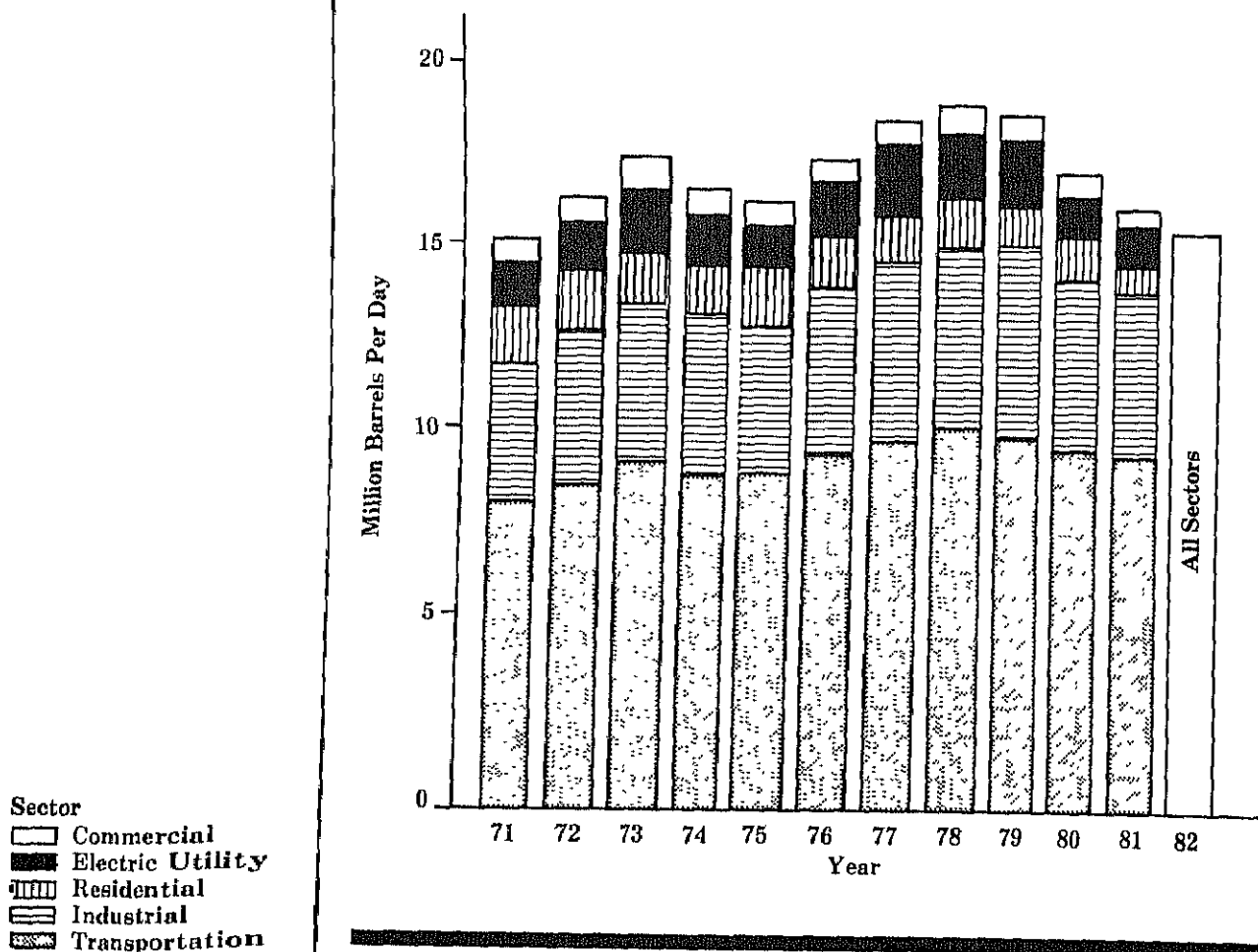
During the period from 1971 through 1981, patterns of consumption of major petroleum products changed. Two periods of major price increases were followed by reduced petroleum usage in all sectors of the economy, because of consumers' conservation efforts and their switching to other, less costly fuels. The transportation and industrial sectors consumed more petroleum in 1981 than in 1971, while the other sectors consumed less (see Figure 9).

Residential Sector

After remaining relatively stable in early 1970's at an annual average about 1.5 million barrels per day, consumption of petroleum products in residential sector declined in recent years (see Figure 10). By 1981, residential use averaged only 0.9 million barrels per day, 40 percent below the average residential consumption in 1971.

The portion of total petroleum production accounted for by the residential sector also declined during the period. In 1971, it was almost 10 percent of the total; in 1977, it was 7 percent; and, in 1981, it was only 6 percent. After 1978, when consumption of products began to decline, residential use declined at an even faster rate. In 1981, residential consumption had dropped 28 percent compared with a 10 percent drop in total consumption.

Figure 9. Consumption of Petroleum Products by End-Use Sector: 1971 to 1981

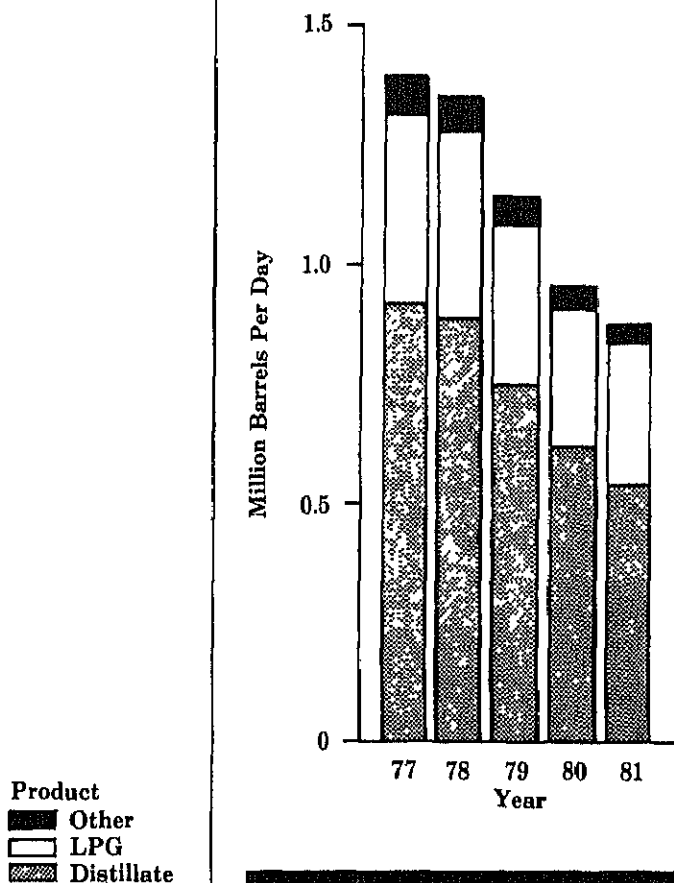


The decline in residential consumption of petroleum products can be traced primarily to fuel switching and conservation brought on by increases in the cost of fuel oil. The average retail price per gallon for residential heating oil was \$1.20 in 1981, almost triple the 1976 price of 40.6 cents.⁷ As the 1980 EIA Residential Energy Consumption Survey showed, many households have switched from heating oil to natural gas and wood.⁸

Commercial Sector

The commercial sector uses about half as much petroleum as the residential sector. Between 1971 and 1981, commercial consumption fell from 0.7 million barrels per day in 1973, to a recent low of 0.5 million barrels per day in 1981. Commercial consumption in 1981 was 3 percent of total consumption compared with 5 percent in 1971.

Figure 10. Consumption of Major Petroleum Products in the Residential Sector



As with residential consumption, commercial use of petroleum products also declined as prices rose. Distillate and residual fuel oils are the principal petroleum products consumed in apartment buildings, business offices, and institutions. As the prices of petroleum products increased, commercial consumers began to switch to other fuels and to utilize conservation means to reduce expenses. In addition, economic conditions since 1981 have forced many commercial establishments to close.

Electric Utility Sector

Like petroleum consumption in the residential and commercial sectors, consumption in the electric utility sector also declined. Electric utility consumption of petroleum products peaked in 1977 at 1.7 million barrels per day, 60 percent higher than the 1.1 million barrels per day consumed in 1971 and 40 percent above the 1981 average annual consumption of 1.0 million barrels per day.⁹ Since 1977, the electric utility portion of total petroleum product consumption has declined as well, from about 11 percent in 1977 to 7 percent in 1981 (see Figure 12).

Price has been a primary factor in the decline in petroleum consumption at electric utilities. The significant increase in the cost of fuel oil relative to the cost of other fuels has encouraged switching to fuels other than petroleum. The EIA report, *Cost and Quality of Fuels for Electric Utility Plants*, 1988 Annual, shows that, in 1978, the cost (per Btu) of fuel oil to electric utilities was 53 percent higher than natural gas costs and almost twice the cost of coal. In 1981, the price differential had increased, and the price of fuel oil was almost twice that of natural gas and almost three and a half times the price of coal.

⁷Monthly Energy Review (March 1982), p. 8

⁸Energy Information Administration, Residential Energy Consumption Survey, Consumption and Expenditures April 1979 through March 1981, DOE/EIA-0321 (Washington, D.C.: September 1982), pp. 9.

⁹Monthly Energy Review (November 1981), p. 23.

Definitions of Major End-use Consuming Sectors

The State Energy Data System assigns energy consumption to five major end-use sectors according to the following guidelines:

- **Residential Sector:** Energy consumed by private household establishments primarily for space heating, water heating, air conditioning, cooking, and clothes drying.
- **Commercial Sector:** Energy consumed by non-manufacturing establishments. Included are motels, restaurants, wholesale businesses, retail stores, laundries, and other service enterprises, as well as health, social, and educational institutions, and

energy consumed by Federal, State and local government.

- **Industrial Sector:** Energy consumed by manufacturing, construction, mining, agriculture, and forestry establishments.

- **Transportation Sector:** Energy consumed to move people and commodities in both the public and private sectors. Included are military, railroad, vessel bunkering, and marine uses, as well as the pipeline transmission of natural gas.

- **Electric Utility Sector:** Energy consumed by privately—and publicly—owned establishments which generate electricity primarily for resale.

Figure 11. Consumption of Major Petroleum Products in the Commercial Sector

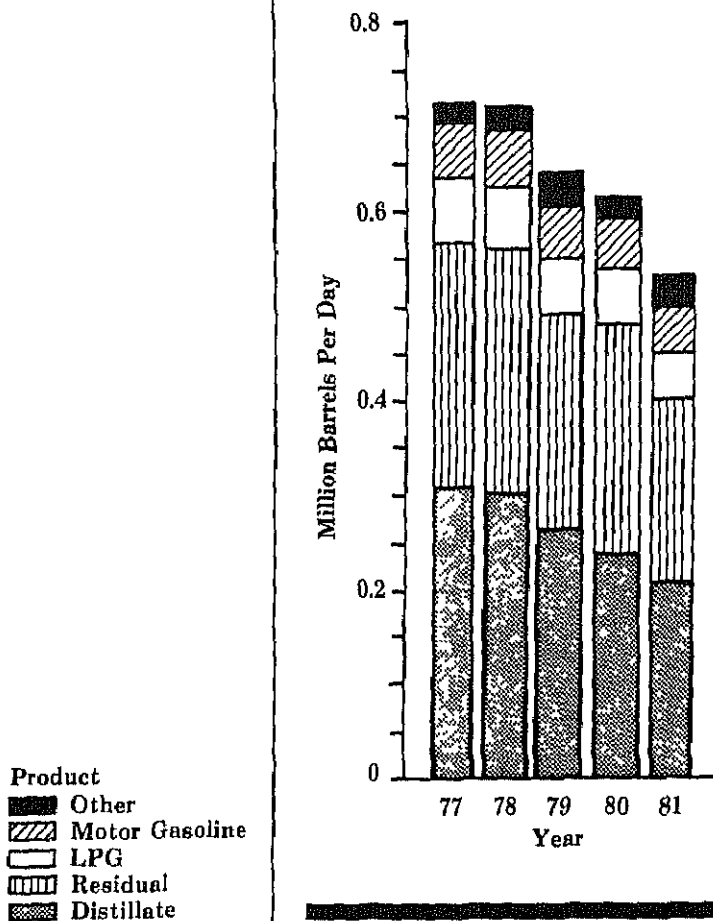
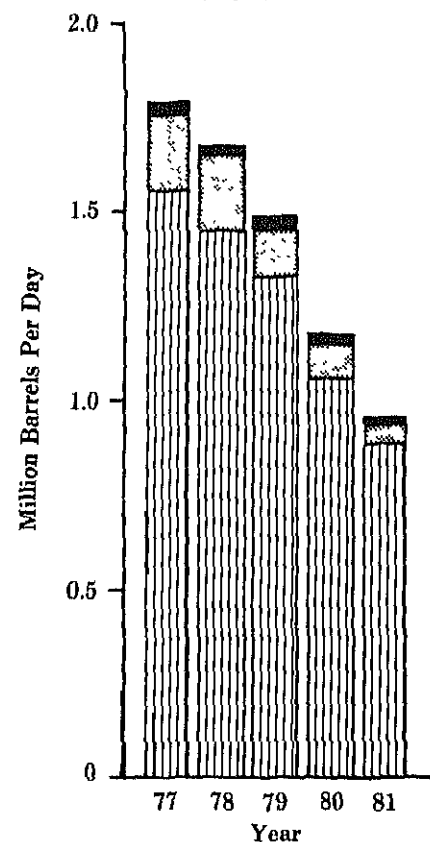


Figure 12. Consumption of Petroleum Products the Electric Utility Sector



Industrial Sector

Industrial use of petroleum products fluctuated with the economy between 1971 and 1981, but its share of total petroleum consumption changed very little (see Figures 9 and 13). During 1971, industrial consumption averaged 3.9 million barrels per day and accounted for about 25 percent of total consumption. Industrial consumption then climbed to 4.5 million barrels per day in 1973, before declining during the 1974-1975 recession. From 1976 through 1979, consumption again increased, as industrial output increased. It peaked at 5.1 million barrels per day in 1979, 33 percent above the 1971 average. Industrial consumption was lower in 1980 and again in 1981 as economic conditions deteriorated. The 1981 average of 4.1 million barrels per day was 20 percent below 1979 levels but 9 percent higher than in 1971. Industrial consumption in 1981 accounted for 26 per-

cent of total petroleum product consumption.

Transportation Sector

More petroleum is consumed in the transportation sector than in any other sector of the economy. It was the only economic sector in which a greater volume was consumed in 1981 than in 1971. Its share of total petroleum consumption also increased over the same period. Consumption for transportation uses averaged 9.5 million barrels per day in 1981 compared with 8.1 million barrels per day in 1971. The 1981 average, however, was 6.5 percent below the record 10.1 million barrels per day consumed in 1978. As a portion of total consumption the transportation sector accounted for 59 percent in 1981 compared with portions ranging between 52 and 55 percent in the 1970's. Transportation is expected to remain the principal consuming sector for petroleum products throughout the 1980's.

Figure 13. Consumption of Major Petroleum Products in the Industrial Sector

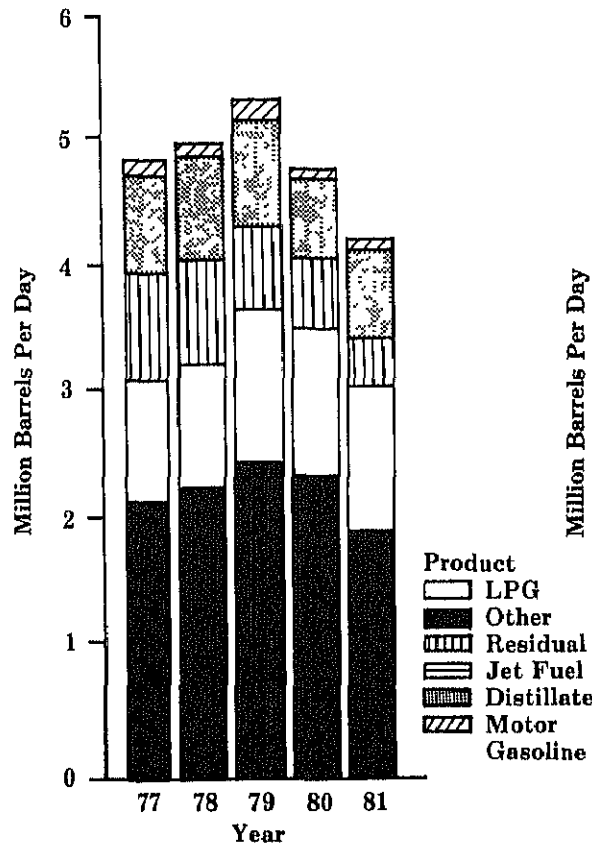
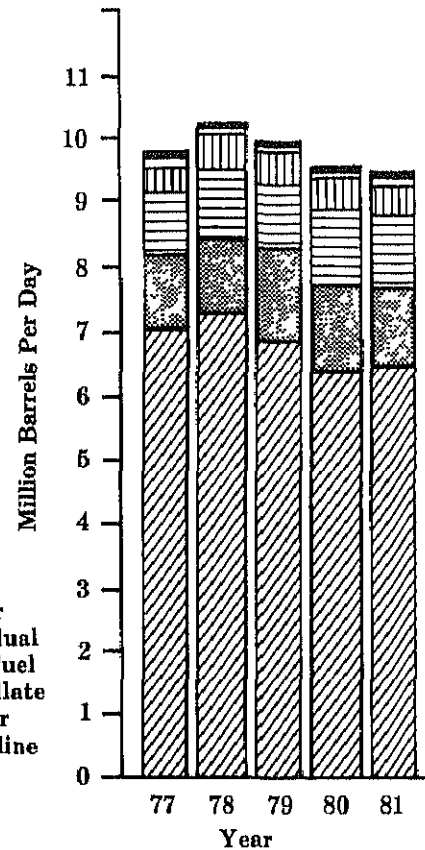
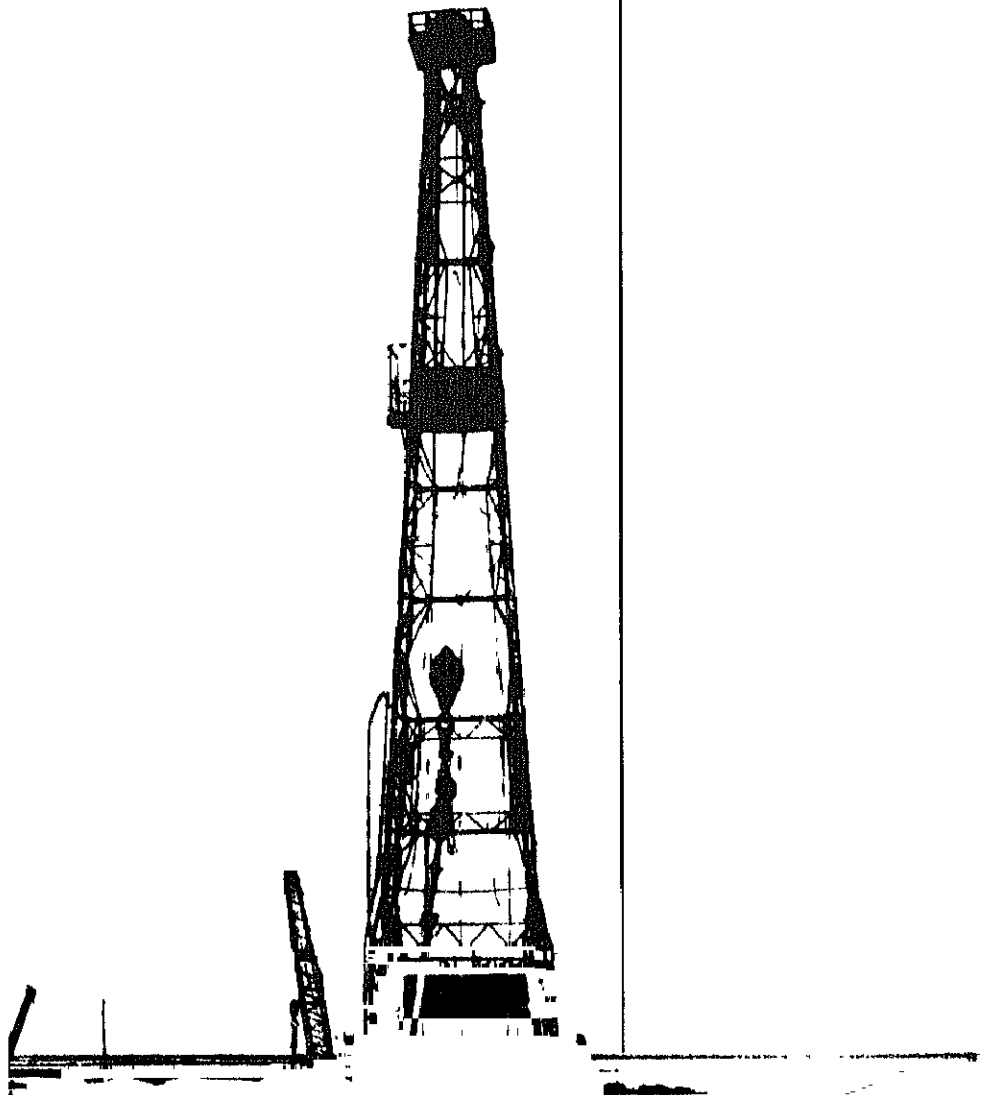


Figure 14. Consumption of Major Petroleum Products in the Transportation Sector



Summary Statistics



Crude Oil¹ and Petroleum Products Overview

		Field Production			Stock Withdrawal ²			Ending Stocks ³
		Total Domestic ⁴	Crude Oil	Natural Gas Plant Production	Crude Oil ⁵	Petroleum Products	Petroleum Products Supplied	Crude Oil ⁵ and Petroleum Products
		Thousand Barrels per Day						Millions of Barrels
1973	AVERAGE	10,975	9,208	1,738	11	-146	17,308	1,008
1974	AVERAGE	10,498	8,774	1,688	-62	-117	16,853	1,074
1975	AVERAGE	10,045	8,375	1,633	-17	-145	16,322	1,133
1976	AVERAGE	9,774	8,132	1,603	-39	96	17,461	1,112
1977	AVERAGE	9,913	8,245	1,618	-170	-378	18,431	1,312
1978	AVERAGE	10,328	8,707	1,567	-78	172	18,847	1,278
1979	AVERAGE	10,179	8,552	1,584	-148	-25	18,513	1,341
1980	AVERAGE	10,214	8,597	1,573	-98	-42	17,056	1,392
1981	January	10,231	8,540	1,652	50	1,159	18,430	1,388
	February	10,294	8,604	1,653	-278	250	16,989	1,389
	March	10,272	8,613	1,624	-632	224	15,907	1,401
	April	10,195	8,557	1,599	-595	148	15,350	1,415
	May	10,160	8,501	1,593	-391	-374	15,353	1,438
	June	10,287	8,629	1,594	-135	406	16,095	1,430
	July	10,098	8,500	1,548	-360	91	15,682	1,439
	August	10,243	8,583	1,614	397	-999	15,263	1,457
	September	10,281	8,604	1,612	-285	-341	15,655	1,476
	October	10,225	8,563	1,598	-760	477	15,822	1,485
	November	10,269	8,586	1,630	-325	-233	15,593	1,501
	December	10,220	8,585	1,590	-170	745	16,596	1,484
	AVERAGE	10,230	8,572	1,609	-290	130	16,058	
1982	January	10,257	8,669	1,548	-236	1,129	15,890	1,461
	February	10,261	8,690	1,524	-216	1,268	15,941	1,431
	March	10,212	8,597	1,570	-65	1,049	15,560	1,401
	April	10,296	8,652	1,588	107	1,594	16,048	1,350
	May	10,223	8,660	1,520	49	-34	14,845	1,349
	June	10,242	8,681	1,505	86	-515	14,931	1,362
	July	10,228	8,649	1,521	-155	-865	14,771	1,394
	August	10,301	8,701	1,543	-440	4	14,838	1,407
	September	10,306	8,733	1,513	252	-489	14,921	1,415
	October	10,283	8,676	1,540	-564	-55	14,820	1,434
	November*	10,377	8,690	1,634	R-357	R-357	R 15,031	R 1,455
	December**	NA	8,660	NA	-126	200	14,894	1,440
	AVERAGE	NA	8,671	NA	-140	238	15,201	

¹ Includes lease condensate.

² A negative number indicates an increase in stocks and a positive number indicates a decrease.

³ Ending stocks for 1973-1980 are totals as of December 31.

⁴ Includes crude oil, natural gas plant production, other hydrocarbons and alcohol.

⁵ Includes stocks located in the Strategic Petroleum Reserve.

Totals may not equal sum of components due to independent rounding.

NA = Not available. R = Revised data

* See Explanatory Note 5.1.

** Italics denote preliminary data. See Explanatory Note 2.7.

Note: Annual stock changes for 1975 and 1981 were calculated using expanded survey coverage.

Geographic coverage: The 50 United States and the District of Columbia.

Crude Oil¹ and Petroleum Products Overview (continued)

		Imports ²			Exports ³				
		Total	Crude Oil ⁴	Petroleum Products	Total	Crude Oil	Petroleum Products		Net ⁵ Imports
Thousand Barrels per Day									
1973	AVERAGE	6,256	3,244	3,012	231	2	229	6,025	
1974	AVERAGE	6,112	3,477	2,635	221	3	218	5,892	
1975	AVERAGE	6,056	4,105	1,951	209	6	204	5,846	
1976	AVERAGE	7,313	5,287	2,026	223	8	215	7,090	
1977	AVERAGE	8,807	6,615	2,193	243	50	193	8,565	
1978	AVERAGE	8,363	6,356	2,008	362	158	204	8,002	
1979	AVERAGE	8,456	6,519	1,937	472	235	237	7,984	
1980	AVERAGE	6,909	5,263	1,646	544	287	258	6,365	
1981	January	6,827	4,932	1,895	558	339	219	6,270	
	February	6,772	4,873	1,899	569	198	371	6,203	
	March	6,028	4,521	1,507	586	210	376	5,442	
	April	5,668	4,338	1,330	570	198	372	5,098	
	May	5,775	4,287	1,489	595	312	283	5,180	
	June	5,435	4,061	1,375	420	123	297	5,015	
	July	5,816	4,296	1,521	571	257	314	5,245	
	August	5,767	4,179	1,588	644	204	440	5,123	
	September	6,365	4,740	1,624	519	194	325	5,845	
	October	5,959	4,380	1,579	738	226	512	5,221	
	November	5,741	4,046	1,695	701	278	423	5,041	
	December	5,843	4,137	1,706	656	189	467	5,187	
		AVERAGE	5,996	4,396	1,599	595	228	367	5,401
1982	January	5,232	3,648	1,585	829	238	591	4,404	
	February	4,691	2,949	1,742	804	304	499	3,887	
	March	4,461	2,856	1,606	882	321	561	3,579	
	April	4,286	2,813	1,474	786	174	611	3,501	
	May	4,784	3,314	1,471	803	262	542	3,981	
	June	5,227	3,782	1,445	703	94	609	4,524	
	July	5,763	4,245	1,518	741	229	512	5,022	
	August	5,156	3,820	1,336	858	304	554	4,298	
	September	5,359	3,603	1,757	791	184	606	4,569	
	October	5,230	3,636	1,594	932	270	662	4,298	
	November*	R 5,726	R 3,863	R 1,864	786	262	524	4,940	
	December**	4,377	3,023	1,354	NA	NA	NA	NA	
		AVERAGE	5,026	3,466	1,560	NA	NA	NA	NA

¹ Includes lease condensate.

² Includes shipments from United States possessions and territories.

³ Includes shipments to United States possessions and territories.

⁴ Includes crude oil for storage in the Strategic Petroleum Reserve.

⁵ Net Imports = Imports minus Exports.

Totals may not equal sum of components due to independent rounding.

NA = Not available. R = Revised data.

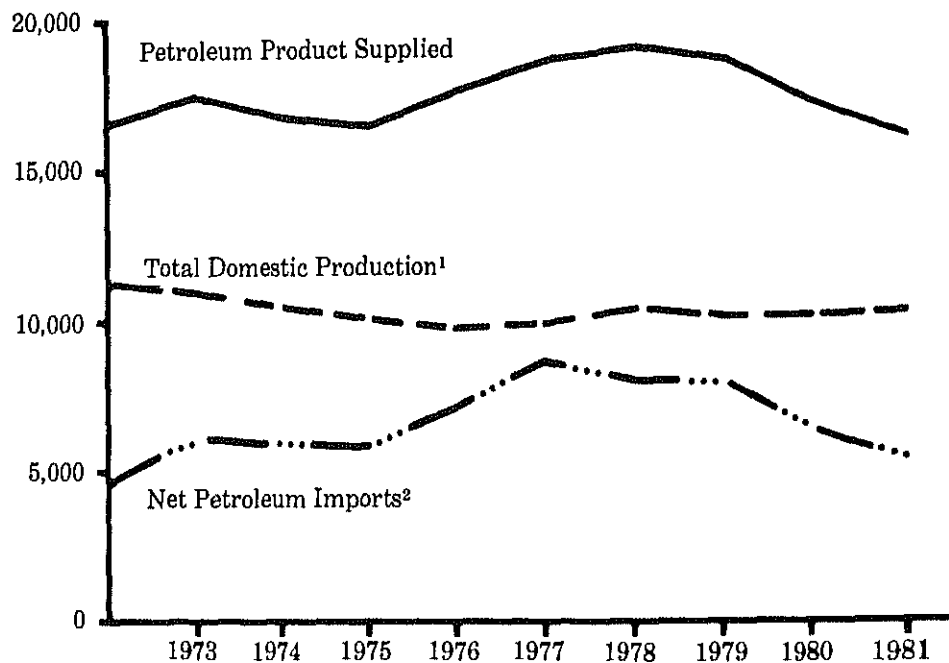
* See Explanatory Note 5.1.

** Italics denote preliminary data. See Explanatory Note 2.7.

Geographic coverage: The 50 United States and the District of Columbia.

Sources: See "Sources" at the end of this section.

Petroleum Overview, Annual (Thousand Barrels per Day)





¹Includes crude oil and natural gas plant production.

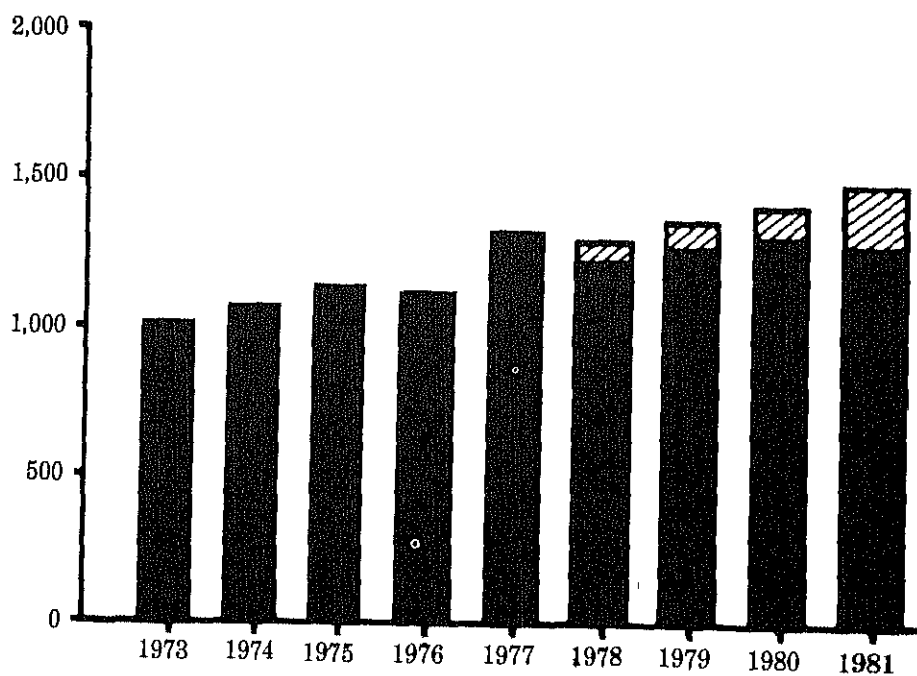
²Includes SPR imports.

Source table: "Crude Oil and Petroleum Products Overview."

Crude Oil and Petroleum Products Ending Stocks, Annual (Millions of Barrels)

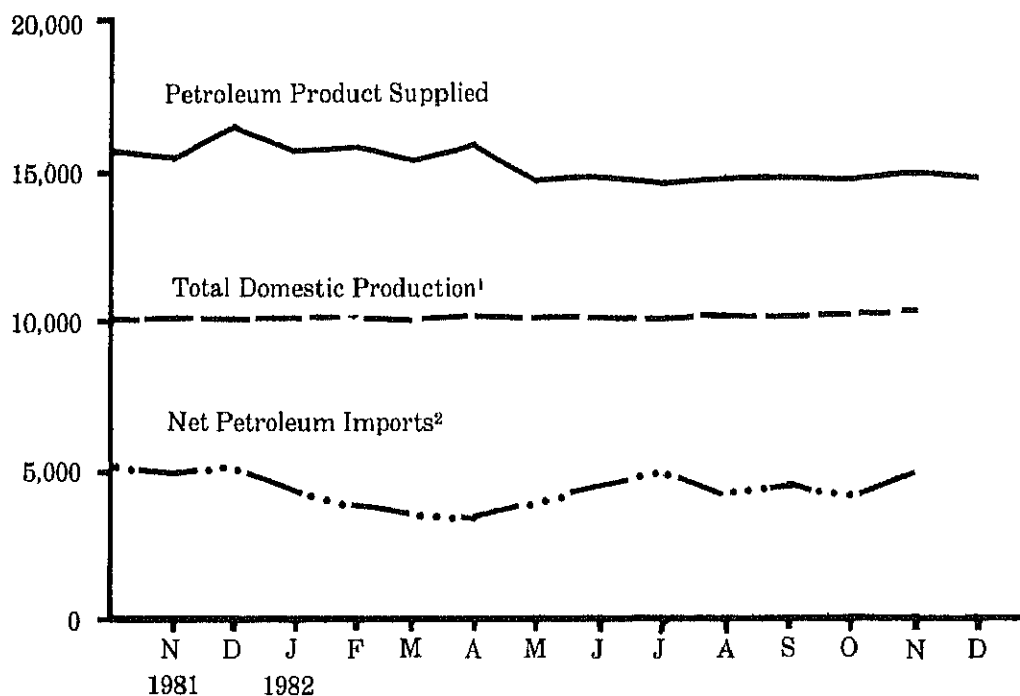
Legend

-  SPR Crude Oil
-  Crude Oil and Petroleum Products, Excluding SPR



Source tables: "Crude Oil and Petroleum Products Overview" and "Crude Oil Supply and Disposition."

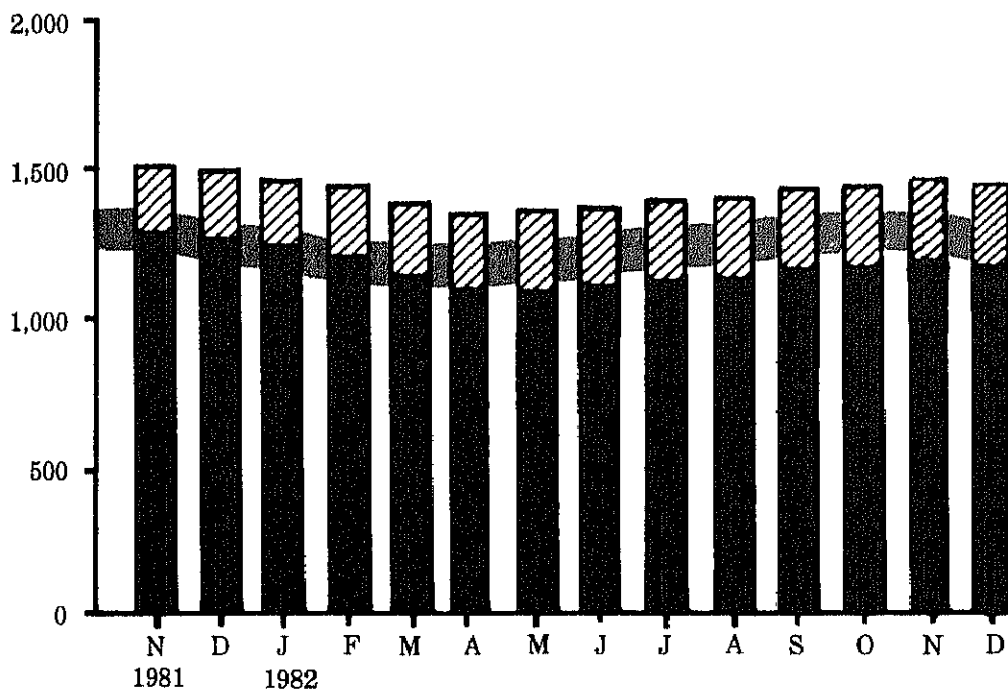
Petroleum Overview, Monthly (Thousand Barrels per Day)



Crude Oil and Petroleum Product Ending Stocks, Monthly (Millions of Barrels)

Legend

- SPR Crude Oil
- Crude Oil and Petroleum Products, Excluding SPR
- Average Stock Range¹



Crude Oil¹ Supply and Disposition

		Supply						
		Field Production		Imports ²			Stock Withdrawal ³	
		Total Domestic	Alaskan	Total	SPR ⁴	Other	SPR ⁴	Other
		Thousand Barrels per Day						
1973	AVERAGE	9,208	198	3,244		3,244		11
1974	AVERAGE	8,774	193	3,477		3,477		-62
1975	AVERAGE	8,375	191	4,105		4,105		-17
1976	AVERAGE	8,132	173	5,287		5,287		-39
1977	AVERAGE	8,245	464	6,615	21	6,594	-20	-150
1978	AVERAGE	8,707	1,229	6,356	162	6,195	-163	84
1979	AVERAGE	8,552	1,401	6,519	67	6,452	-67	-81
1980	AVERAGE	8,597	1,617	5,263	44	5,219	-46	-52
1981	January	8,540	1,606	4,932	106	4,826	-151	201
	February	8,604	1,619	4,873	80	4,793	-127	-150
	March	8,613	1,618	4,521	140	4,382	-155	-477
	April	8,557	1,608	4,338	272	4,066	-444	-151
	May	8,501	1,580	4,287	386	3,901	-513	122
	June	8,629	1,632	4,061	318	3,743	-434	299
	July	8,500	1,605	4,296	175	4,121	-324	-36
	August	8,583	1,602	4,179	257	3,922	-372	769
	September	8,604	1,607	4,740	435	4,305	-486	201
	October	8,563	1,596	4,380	453	3,927	-501	-259
	November	8,586	1,614	4,046	271	3,774	-259	-66
	December	8,585	1,623	4,137	165	3,971	-252	82
	AVERAGE	8,572	1,609	4,396	256	4,141	-336	46
1982	January	8,669	1,712	3,648	170	3,478	-159	-77
	February	8,690	1,715	2,949	159	2,790	-213	-3
	March	8,597	1,702	2,856	185	2,671	-235	170
	April	8,652	1,687	2,813	190	2,623	-233	341
	May	8,660	1,725	3,314	204	3,110	-176	225
	June	8,681	1,675	3,782	105	3,678	-105	191
	July	8,649	1,715	4,245	97	4,147	-97	-58
	August	8,701	1,699	3,820	208	3,611	-208	-233
	September	8,733	1,707	3,603	139	3,463	-143	395
	October	8,676	1,677	3,636	216	3,420	-216	-348
	November*	8,690	1,667	R 3,863	R 180	R 3,683	R -179	R -177
	December**	8,660	1,663	3,023	145	2,878	-129	3
	AVERAGE	8,671	1,695	3,466	167	3,299	-174	34

¹ Includes lease condensate.

² Includes shipments from United States possessions and territories.

³ A negative number indicates an increase in stocks and a positive number indicates a decrease.

⁴ Strategic Petroleum Reserve.

Totals may not equal sum of components due to independent rounding.

NA = Not available. R = Revised data.

* See Explanatory Note 5.2.

** Italics denote preliminary data. See Explanatory Note 2.7.

Note. Annual stock changes for 1975 and 1981 were calculated using expanded survey coverage.

Geographic coverage: The 50 United States and the District of Columbia

Sources: See "Sources" at the end of this section.

Crude Oil¹ Supply and Disposition (continued)

		Supply (Continued)		Disposition		Ending Stocks ²		
		Unac- counted for Crude Oil	Crude Used Directly and Losses	Refinery Inputs	Exports ³	Total Crude Oil	SPR ⁴	Other Primary
		Thousand Barrels per Day				Millions of Barrels		
1973	AVERAGE	3	-32	12,431	2	242		242
1974	AVERAGE	-25	-28	12,133	3	265		265
1975	AVERAGE	17	-30	12,442	6	271		271
1976	AVERAGE	77	-33	13,416	8	285		285
1977	AVERAGE	-6	-30	14,602	50	348	7	340
1978	AVERAGE	-57	-30	14,739	158	376	67	309
1979	AVERAGE	-11	-29	14,648	235	430	91	339
1980	AVERAGE	34	-28	13,481	287	466	108	358
1981	January	113	-49	13,247	339	486	112	374
	February	-41	-58	12,902	198	494	116	378
	March	154	-63	12,389	210	514	121	393
	April	51	-62	12,091	198	532	134	397
	May	286	-62	12,309	312	544	150	394
	June	49	-65	12,415	123	548	163	385
	July	147	-65	12,261	257	559	173	386
	August	16	-63	12,908	204	547	185	362
	September	-295	-65	12,505	194	555	199	356
	October	166	-66	12,057	226	579	215	364
	November	279	-68	12,240	278	589	223	366
	December	52	-67	12,349	189	594	230	363
	AVERAGE	83	-63	12,470	228			
1982	January	-138	-66	11,638	238	606	235	371
	February	199	-66	11,252	304	612	241	371
	March	278	-68	11,277	321	614	249	366
	April	56	-68	11,386	174	611	256	355
	May	105	-65	11,801	262	609	261	348
	June	110	-67	12,498	94	607	264	343
	July	1	-63	12,447	229	612	267	345
	August	140	-59	11,858	304	625	274	352
	September	-218	-59	12,126	184	618	278	340
	October	324	-53	11,750	270	635	285	351
	November*	-141	-52	R 11,741	262	R 646	R 290	R 358
	December**	NA	NA	11,772	NA	648	293	354
	AVERAGE	NA	NA	11,798	NA			

¹ Includes lease condensate.

² Ending stocks for 1973-1980 are totals as of December 31.

³ Includes shipments to United States possessions and territories.

⁴ Strategic Petroleum Reserve.

Totals may not equal sum of components due to independent rounding.

NA = Not available. R = Revised data.

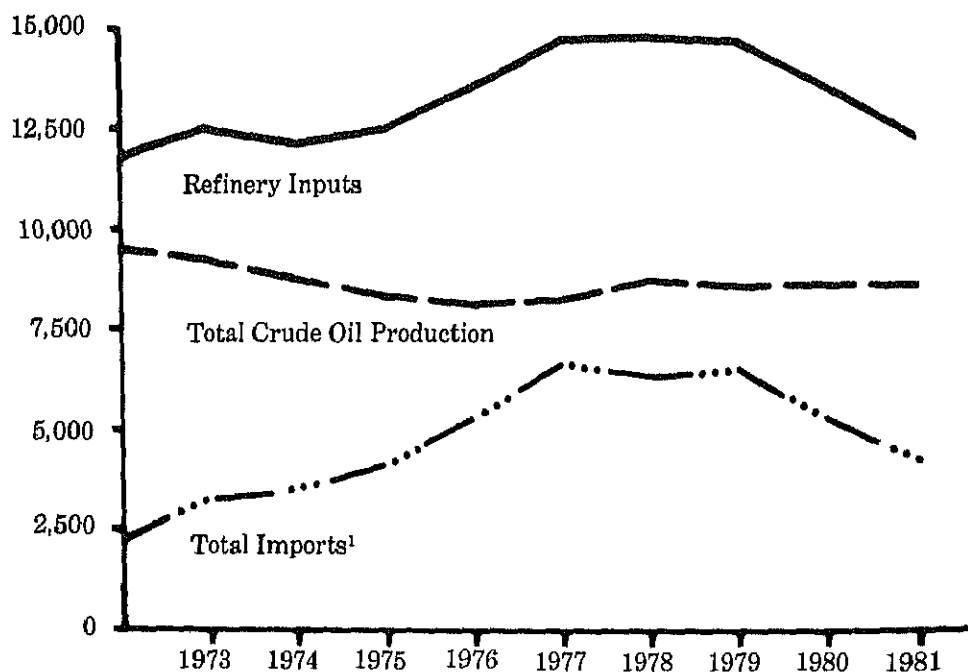
* See Explanatory Note 5.2.

** Italics denote preliminary data. See Explanatory Note 2.7.

Geographic coverage: The 50 United States and the District of Columbia.

Sources: See "Sources" at the end of this section.

Crude Oil Supply and Disposition, Annual (Thousand Barrels per Day)



¹Includes SPR imports.

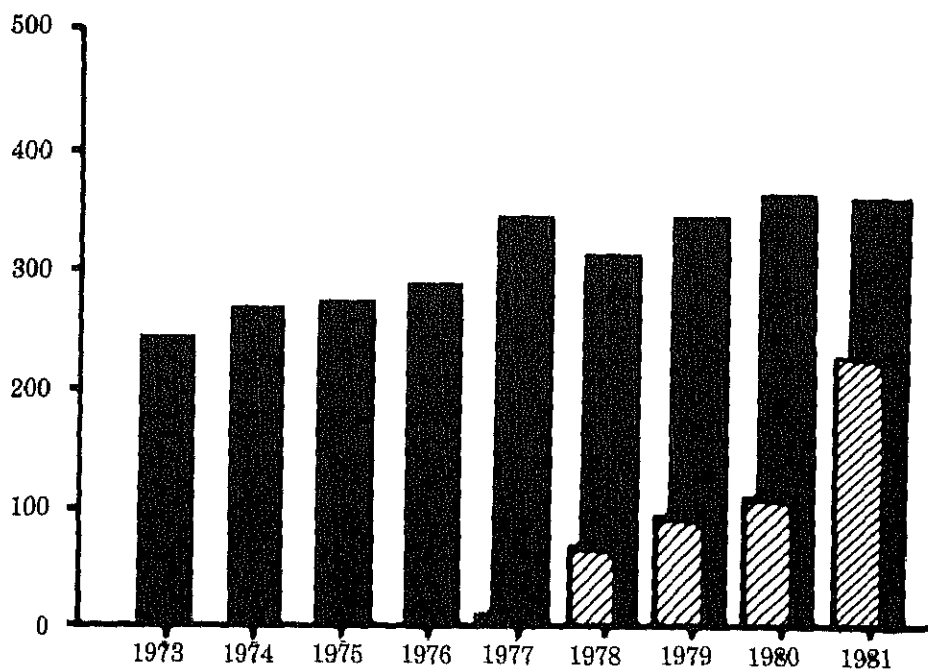
Source table: "Crude Oil Supply and Disposition."

Crude Oil Ending Stocks, Annual (Millions of Barrels)

Legend

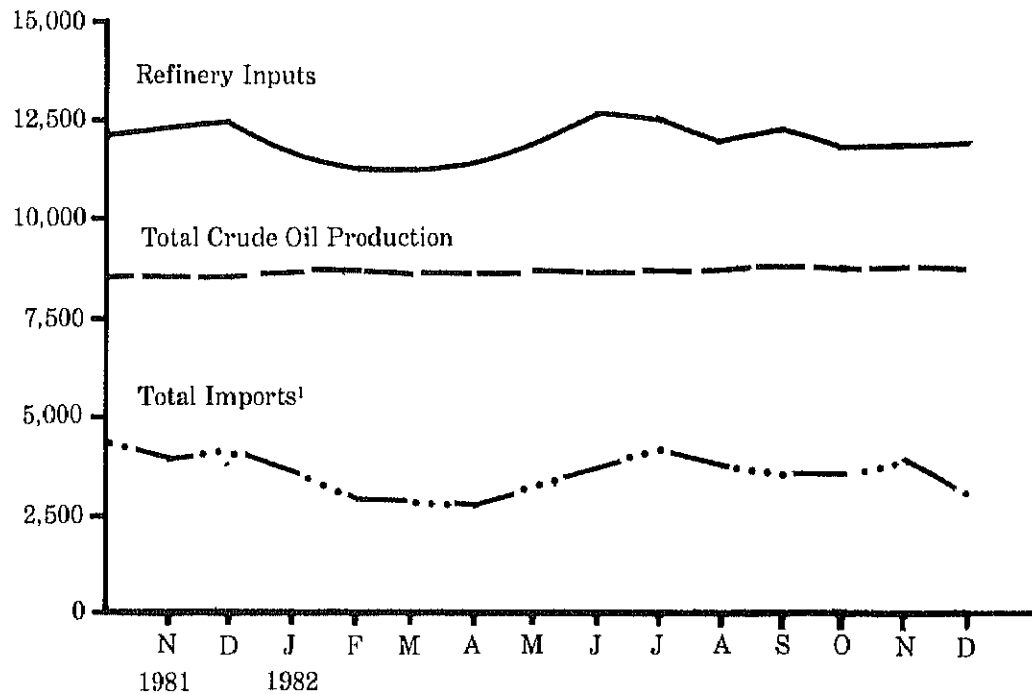
▨ SPR

■ Other Primary



Source table: "Crude Oil Supply and Disposition."

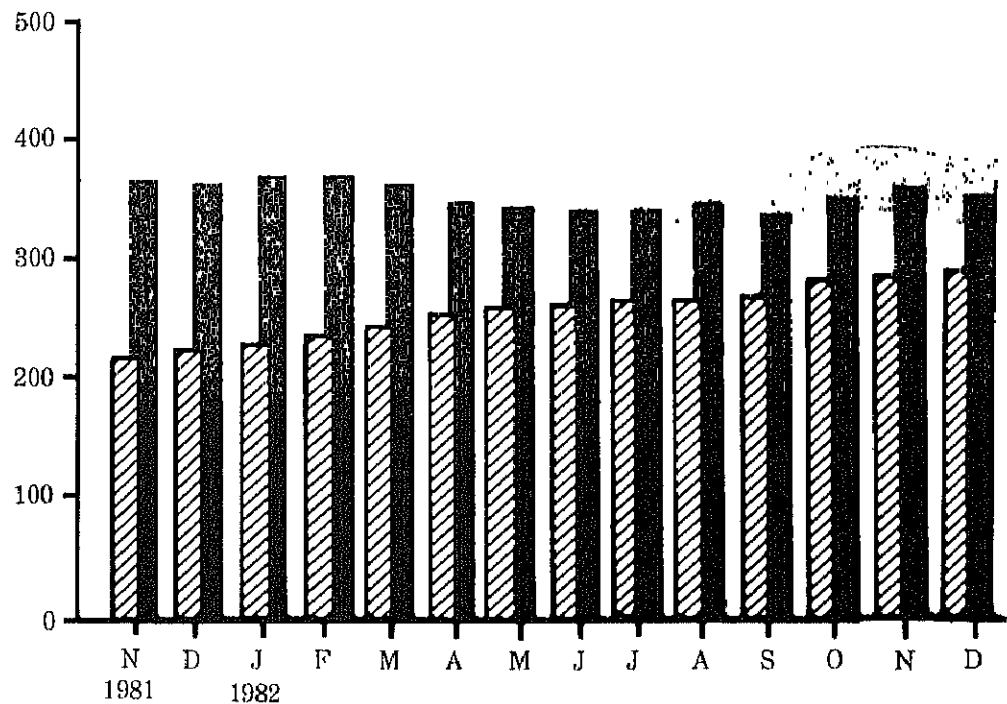
Crude Oil Supply and Disposition, Monthly (Thousand Barrels per Day)



Crude Oil Ending Stocks, Monthly (Millions of Barrels)

Legend

- SPR
- Other Primary
- Average Stock Range¹



Finished Motor Gasoline Supply and Disposition

		Supply			Disposition				Ending Stocks	
		Total Production	Imports ¹	Stock With-drawal ^{1 2}	Exports	Product Supplied			Total Motor Gasoline ³	Finished Motor Gasoline
						Total	Unleaded ⁴	Unleaded		
Thousand Barrels per Day								Percent of Total	Millions of Barrels	
1973	AVERAGE	6,535	134	9	4	6,674	NA	NA	209	
1974	AVERAGE	6,360	204	-24	2	6,537	NA	NA	218	
1975	AVERAGE	6,520	184	-28	2	6,675	NA	NA	235	
1976	AVERAGE	6,841	131	10	3	6,978	NA	NA	231	
1977	AVERAGE	7,033	217	-72	2	7,177	1,976	27.5	258	
1978	AVERAGE	7,169	190	54	1	7,412	2,521	34.0	238	
1979	AVERAGE	6,852	181	2	(^s)	7,034	2,798	39.8	237	
1980	AVERAGE	6,506	140	-66	1	6,579	3,067	46.6	261	
1981	January	6,715	138	-421	(^s)	6,431	3,141	48.8	276	227
	February	6,308	111	-118	1	6,301	3,095	49.1	284	230
	March	6,213	171	-81	(^s)	6,303	3,097	49.1	285	232
	April	6,114	186	303	(^s)	6,602	3,284	49.7	272	223
	May	6,122	150	344	1	6,615	3,115	47.1	259	213
	June	6,220	186	622	1	7,028	3,419	48.6	242	194
	July	6,405	151	268	(^s)	6,823	3,424	50.2	228	186
	August	6,611	124	-95	3	6,637	3,344	50.4	233	189
	September	6,564	169	-70	2	6,662	3,338	50.1	237	191
	October	6,426	147	7	3	6,578	3,257	49.5	236	190
	November	6,564	148	-338	1	6,373	3,198	50.2	248	201
	December	6,586	197	-91	11	6,681	3,444	51.5	253	203
		AVERAGE	6,405	157	28	2	6,588	3,264	49.5	
1982	January	6,181	114	-358	18	5,920	3,033	51.2	262	214
	February	5,917	133	28	8	6,070	3,145	51.8	262	213
	March	6,004	183	469	44	6,612	3,396	51.4	248	199
	April	6,104	177	641	33	6,890	3,494	50.7	223	180
	May	6,322	163	188	23	6,650	3,415	51.3	215	174
	June	6,767	195	-136	14	6,812	3,561	52.3	220	178
	July	6,788	200	-165	24	6,799	3,574	52.6	226	183
	August	6,447	284	-60	16	6,655	3,520	52.9	226	185
	September	6,530	215	-217	22	6,507	3,385	52.0	234	191
	October	6,253	177	-25	15	6,391	3,360	52.6	234	192
	November*	R 6,273	206	91	11	R 6,559	3,448	52.6	R 230	189
	December**	6,447	NA	NA	NA	6,239	NA	NA	237	NA
		AVERAGE	6,339	NA	NA	NA	6,510	NA	NA	

¹ Beginning in 1981 excludes blending components.

² A negative number indicates an increase in stocks and a positive number indicates a decrease.

³ Includes motor gasoline blending components. Ending stocks for 1973-1980 are totals as of December 31.

⁴ Includes gasoline.

Totals may not equal sum of components due to independent rounding.

(⁵) = Less than 500 barrels. NA = Not available. R = Revised data.

* See Explanatory Note 5.3.

** Italics denote preliminary data. See Explanatory Note 2.7.

Notes: Beginning in January 1981, survey forms were modified. See Explanatory Note 4 on Changes for the effects on motor gasoline statistics.

Annual stock changes for 1975 and 1981 were calculated using expanded survey coverage.

Geographic coverage: The 50 United States and the District of Columbia.

Sources: See "Sources" at the end of this section.

Distillate Fuel Oil Supply and Disposition

		Supply				Disposition		Ending Stocks ¹
		Total Production	Imports	Stock Withdrawal ²	Crude Used Directly	Exports	Product Supplied	
		Thousand Barrels per Day						
								Millions of Barrels
1973	AVERAGE	2,822	392	-115	2	9	3,092	196
1974	AVERAGE	2,669	289	-9	2	2	2,948	200
1975	AVERAGE	2,654	155	40	2	1	2,851	209
1976	AVERAGE	2,924	146	62	1	1	3,133	186
1977	AVERAGE	3,278	250	-176	1	1	3,352	250
1978	AVERAGE	3,167	173	93	1	3	3,432	216
1979	AVERAGE	3,153	193	-34	1	3	3,311	229
1980	AVERAGE	2,662	142	64	1	3	2,866	205
1981	January	2,989	273	836	11	(⁸)	4,109	179
	February	2,809	325	246	11	17	3,373	173
	March	2,484	147	264	9	(⁸)	2,904	164
	April	2,418	116	-9	10	3	2,532	165
	May	2,454	179	-232	10	(⁸)	2,411	172
	June	2,501	225	-270	9	(⁸)	2,464	180
	July	2,395	179	-204	10	2	2,378	186
	August	2,656	174	-450	8	(⁸)	2,388	200
	September	2,610	129	-235	10	1	2,513	207
	October	2,485	119	197	9	5	2,803	201
	November	2,716	124	36	11	6	2,880	200
	December	2,856	95	277	11	26	3,212	192
	AVERAGE	2,613	173	38	10	5	2,829	
1982	January	2,615	96	780	10	90	3,410	166
	February	2,447	130	689	11	90	3,187	147
	March	2,294	48	612	10	84	2,881	128
	April	2,357	59	631	13	84	2,996	109
	May	2,618	74	-184	10	75	2,444	114
	June	2,731	100	-335	10	55	2,450	125
	July	2,734	124	-761	11	24	2,084	148
	August	2,526	79	-346	10	40	2,228	159
	September	2,658	59	-77	12	139	2,514	161
	October	2,837	97	-290	8	66	2,586	170
	November*	R 2,863	R 141	R -514	8	24	R 2,475	R 186
	December**	2,706	147	32	NA	NA	2,790	181
	AVERAGE	2,616	96	15	NA	NA	2,667	

¹ Ending stocks for 1973 - 1980 are totals as of December 31.

² A negative number indicates an increase in stocks and a positive number indicates a decrease. Totals may not equal sum of components due to independent rounding.

(⁸) = Less than 500 barrels per day. NA = Not available. R = Revised data.

* See Explanatory Note 5.4.

** Italics denote preliminary data. See Explanatory Note 2.7.

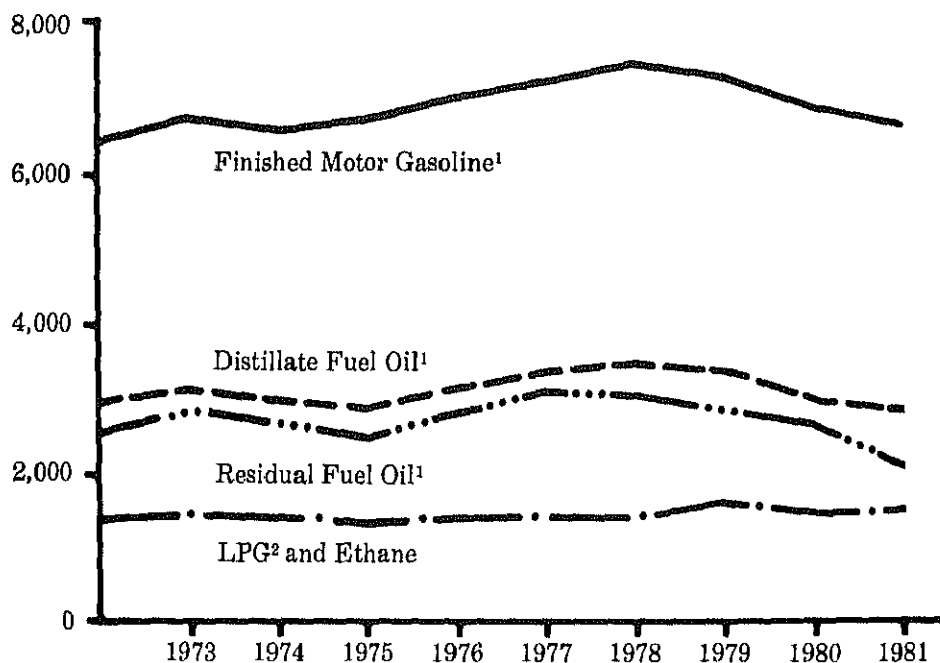
Note: Beginning in January 1981, survey forms were modified. See Explanatory Note 4 on Changes for the effects on Distillate Fuel Oil statistics.

Annual stock changes for 1975 and 1981 were calculated using expanded survey coverage.

Geographic coverage: The 50 United States and the District of Columbia.

Sources: See "Sources" at the end of this section.

Products Supplied, Annual (Thousand Barrels per Day)



¹Figures for 1979 and 1980 recast to account for data system changes in 1981. See Explanatory Note 4.

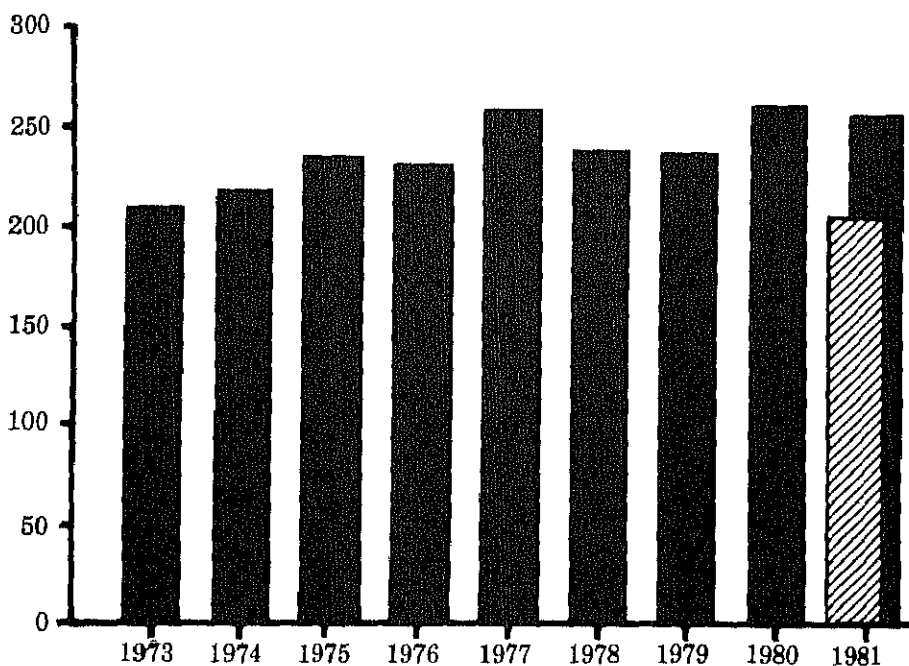
²Liquefied Petroleum Gases.

Source tables: "Finished Motor Gasoline Supply and Disposition," "Distillate Fuel Oil Supply and Disposition," "Residual Fuel Oil Supply and Disposition," "Liquefied Petroleum Gases and Ethane Supply and Disposition."

Motor Gasoline¹ Ending Stocks, Annual (Millions of Barrels)

Legend

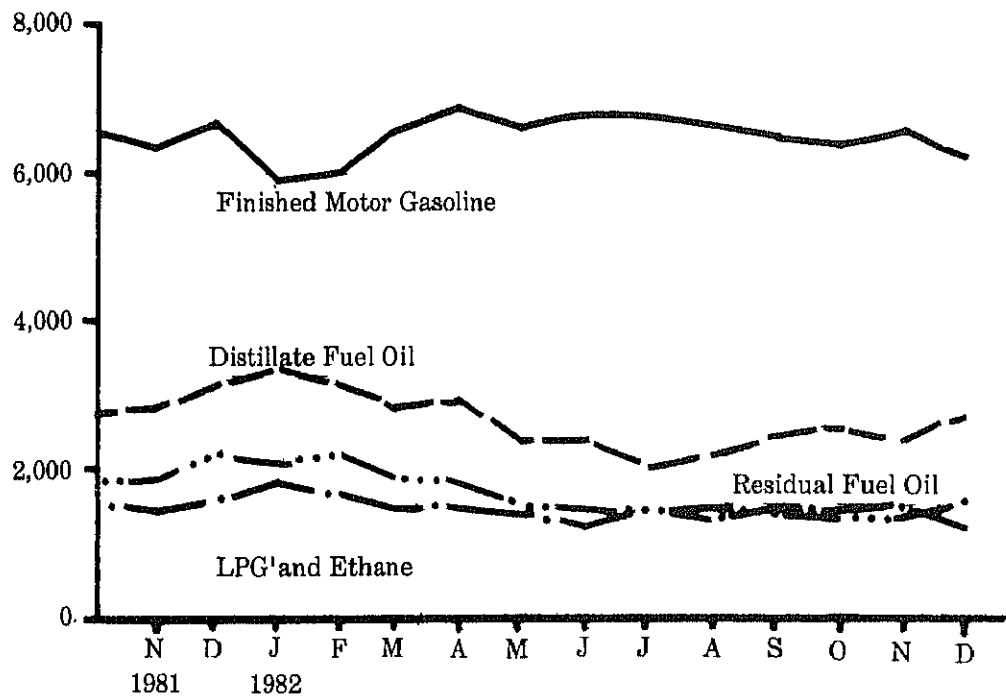
- Total
- ▨ Finished



¹Includes finished motor gasoline blending components.

Source table: "Finished Motor Gasoline Supply and Disposition."

Products Supplied, Monthly (Thousand Barrels per Day)



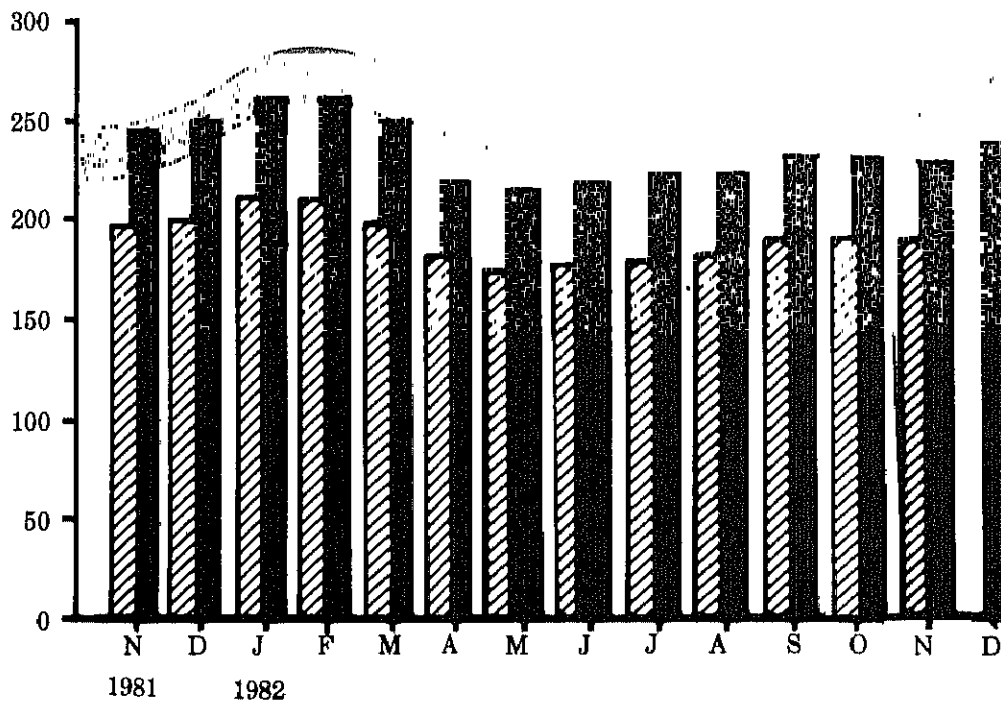
Liquefied Petroleum Gases.

Source tables: "Finished Motor Gasoline Supply and Disposition," "Distillate Fuel Oil Supply and Disposition," "Residual Fuel Oil Supply and Disposition," "Liquefied Petroleum Gases and Ethane Supply and Disposition."

Motor Gasoline Ending Stocks, Monthly (Millions of Barrels)

Legend

- Total Motor Gasoline¹
- ▨ Finished Motor Gasoline
- Average Stock Range²

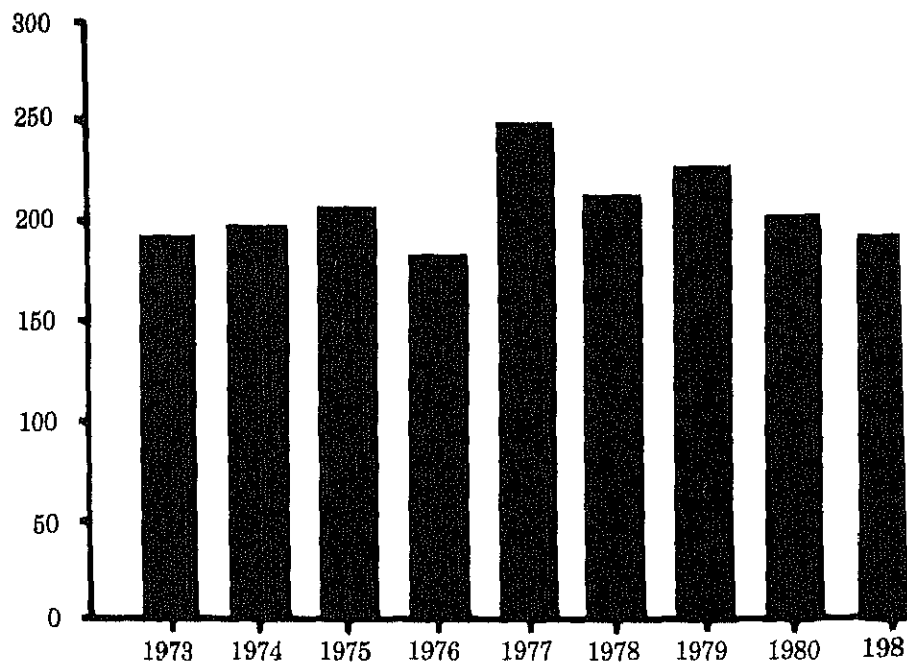


¹Includes finished motor gasoline ending components.

²Average stock range for total motor gasoline based on 3 years of data. See explanatory Note 2.5.

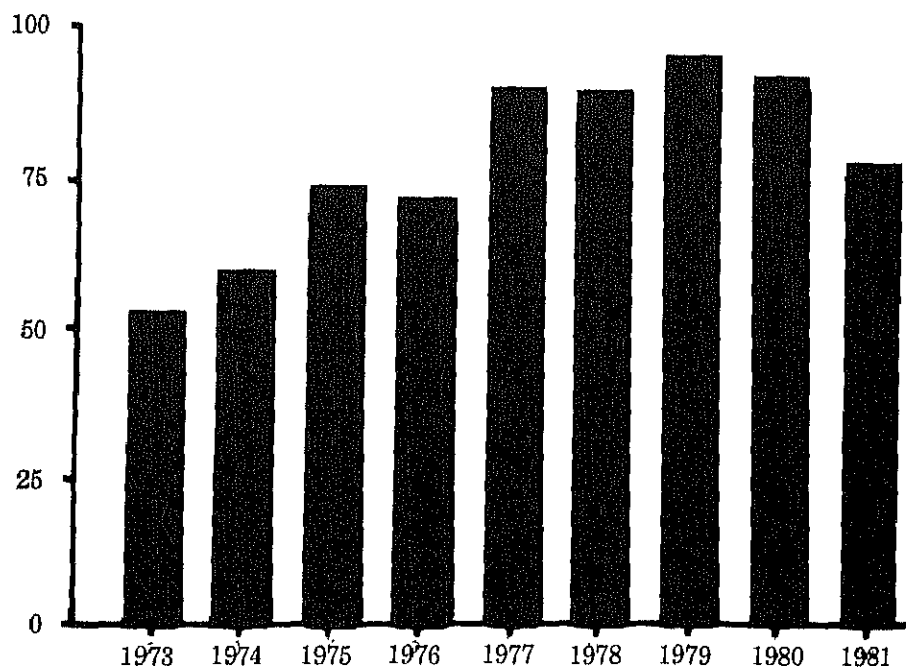
Source table: "Finished Motor Gasoline Supply and Disposition."

Distillate Fuel Oil Ending Stocks, Annual (Millions of Barrels)



Source table: "Distillate Fuel Oil Supply and Disposition."

Residual Fuel Oil Ending Stocks, Annual (Millions of Barrels)

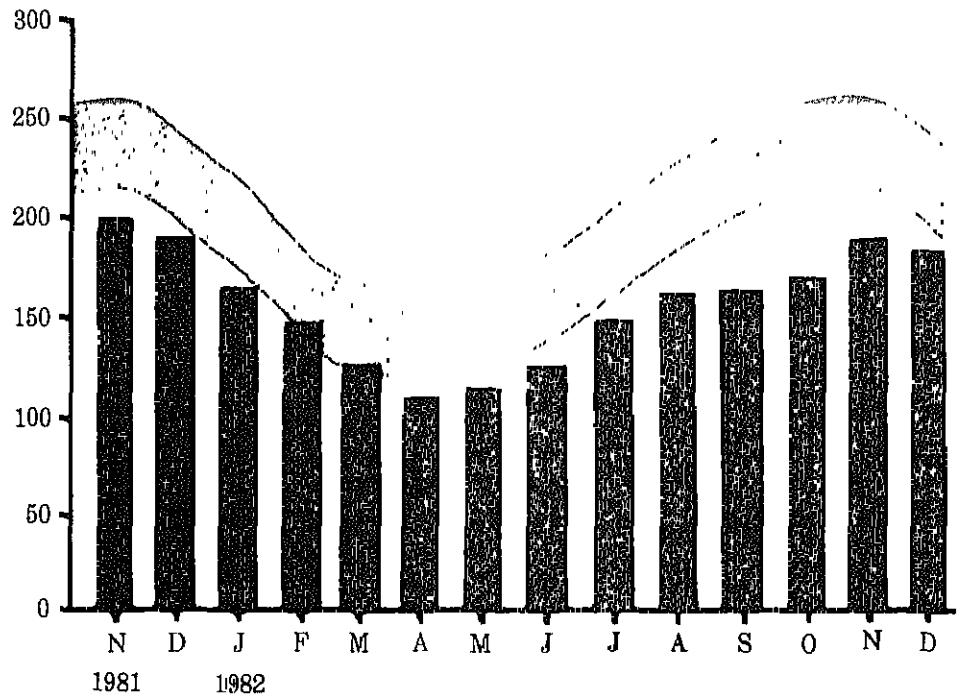


Source table: "Residual Fuel Oil Supply and Disposition."

Distillate Fuel Oil Ending Stocks, Monthly (Millions of Barrels)

Legend

 Average Stock Range¹



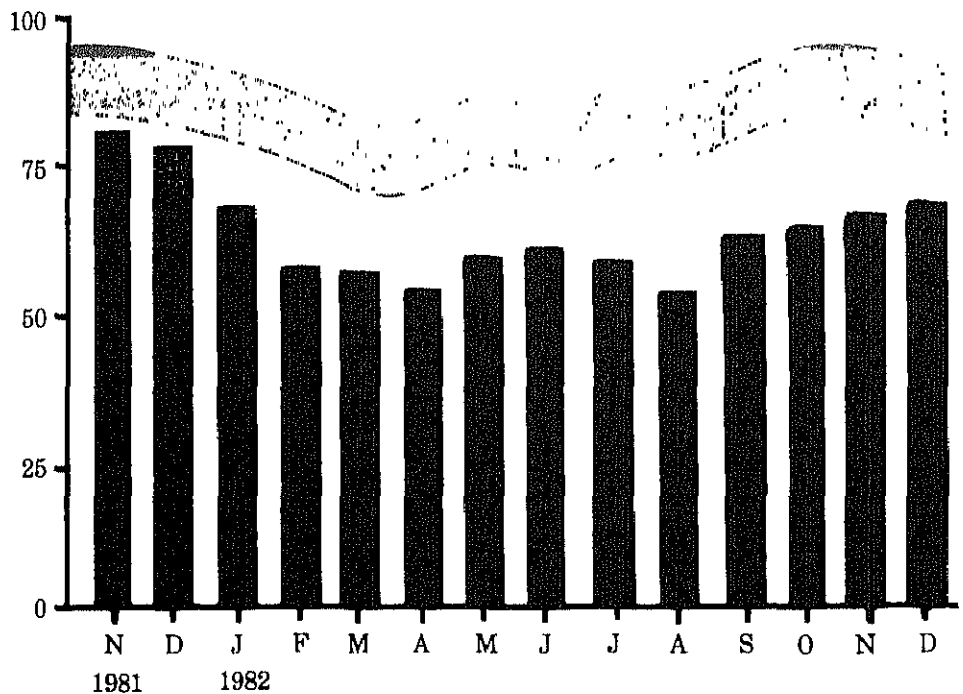
¹Average stock range based on 3 years of data. See Explanatory Note 2.5.

Source table: "Distillate Fuel Oil Supply and Disposition."

Residual Fuel Oil Ending Stocks, Monthly (Millions of Barrels)

Legend

 Average Stock Range¹



¹Average stock range based on 3 years of data. See Explanatory Note 2.5.

Source table: "Residual Fuel Oil Supply and Disposition."

Residual Fuel Oil Supply and Disposition

		Supply				Disposition		Ending Stocks ¹
		Total Production	Imports	Stock Withdrawal ²	Crude Used Directly	Exports	Products Supplied	
		Thousand Barrels per Day						
								Millions of Barrels
1973	AVERAGE	971	1,853	5	17	23	2,822	53
1974	AVERAGE	1,070	1,587	-17	13	14	2,639	60
1975	AVERAGE	1,235	1,223	2	15	15	2,462	74
1976	AVERAGE	1,377	1,413	5	17	12	2,801	72
1977	AVERAGE	1,754	1,359	-48	13	6	3,071	90
1978	AVERAGE	1,667	1,355	-1	13	13	3,023	90
1979	AVERAGE	1,687	1,151	-15	12	9	2,826	96
1980	AVERAGE	1,580	939	10	12	33	2,508	92
1981	January	1,612	1,015	302	32	65	2,896	82
	February	1,565	954	150	44	125	2,588	78
	March	1,424	699	100	48	145	2,126	75
	April	1,320	584	66	49	151	1,868	73
	May	1,223	741	-170	49	25	1,817	78
	June	1,232	540	291	49	76	2,037	69
	July	1,174	830	2	48	82	1,971	69
	August	1,231	819	-179	50	69	1,852	75
	September	1,292	841	-176	51	126	1,882	80
	October	1,238	786	8	54	202	1,884	80
	November	1,227	880	-49	53	203	1,909	81
	December	1,329	916	110	52	157	2,250	78
	AVERAGE	1,321	800	37	48	118	2,088	
1982	January	1,183	821	328	53	235	2,150	68
	February	1,136	928	358	53	213	2,261	58
	March	1,121	910	26	53	197	1,912	57
	April	1,162	762	124	52	234	1,867	54
	May	1,127	738	-175	52	191	1,551	59
	June	1,077	643	-49	50	217	1,504	61
	July	1,029	576	51	49	239	1,466	59
	August	1,007	519	200	47	235	1,538	53
	September	1,007	871	-302	44	148	1,472	62
	October	954	758	-56	43	234	1,466	64
	November*	R 989	R 843	R -95	43	182	R 1,597	R 66
	December**	1,032	558	-148	NA	NA	1,297	68
	AVERAGE	1,068	742	20	NA	NA	1,669	

¹ Ending Stocks for 1973-1980 are totals as of December 31.

² A negative number indicates an increase in stocks and a positive number indicates a decrease.

Totals may not equal sum of components due to independent rounding

NA = Not available. R = Revised data.

* See Explanatory Note 5.4.

** Italics denote preliminary data. See Explanatory Note 2.7.

Notes: Beginning in January 1981, survey forms were modified

See Explanatory Note 4 on changes for the effects on residual fuel oil statistics

Annual stock changes for 1975 and 1981 were calculated using expanded survey coverage.

Geographic Coverage. The 50 United States and the District of Columbia.

Sources: See "Sources" at the end of this section.

Liquefied Petroleum Gases and Ethane Supply and Disposition

		Supply			Disposition			Ending Stocks ¹
		Total Production	Imports	Stock Withdrawal ²	Refinery Inputs	Exports	Product Supplied	
		Thousand Barrels per Day						Millions of Barrels
1973	AVERAGE	1,600	132	-35	220	27	1,449	99
1974	AVERAGE	1,565	123	-38	220	25	1,406	113
1975	AVERAGE	1,527	112	-35	246	26	1,333	125
1976	AVERAGE	1,535	130	24	260	25	1,404	116
1977	AVERAGE	1,566	161	-55	233	18	1,422	136
1978	AVERAGE	1,537	123	12	239	20	1,413	132
1979	AVERAGE	1,556	217	70	236	15	1,592	111
1980	AVERAGE	1,535	216	-27	233	21	1,469	120
1981	January	1,617	306	363	352	21	1,913	117
	February	1,593	327	173	303	21	1,769	112
	March	1,551	260	-4	257	20	1,530	112
	April	1,586	214	-236	231	26	1,308	119
	May	1,587	189	-258	220	19	1,279	127
	June	1,567	206	-208	237	24	1,304	133
	July	1,507	213	-258	215	17	1,229	141
	August	1,592	195	-242	235	149	1,160	149
	September	1,622	199	-75	287	21	1,438	151
	October	1,593	287	72	320	76	1,556	149
	November	1,571	280	86	383	58	1,495	146
	December	1,468	255	379	428	50	1,624	135
	AVERAGE	1,571	244	-18	289	42	1,466	
1982	January	1,546	314	480	398	67	1,873	122
	February	1,476	291	310	327	51	1,699	114
	March	1,523	223	145	289	74	1,528	109
	April	1,566	188	107	257	77	1,527	106
	May	1,583	186	-61	235	43	1,431	108
	June	1,571	192	-109	262	106	1,286	111
	July	1,556	227	-5	253	37	1,487	111
	August	1,591	125	-44	254	61	1,357	112
	September	1,606	247	33	273	85	1,528	111
	October	1,582	194	92	306	81	1,481	109
	November*	1,603	267	172	370	37	1,634	103
	AVERAGE	1,564	222	101	293	65	1,529	

¹ Ending stocks for 1973 - 1980 are totals as of December 31.

² A negative number indicates an increase in stocks and a positive number indicates a decrease.

Totals may not equal sum of components due to independent rounding

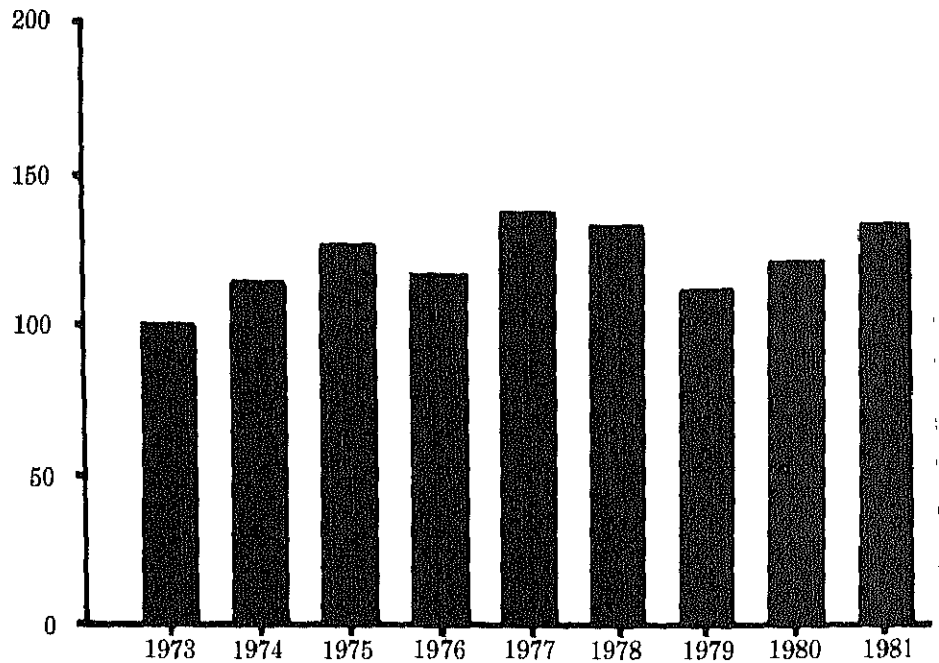
* See Explanatory Note 5.5.

Note: Annual stock changes for 1975 and 1981 were calculated using expanded survey coverage.

Geographic coverage: The 50 United States and the District of Columbia.

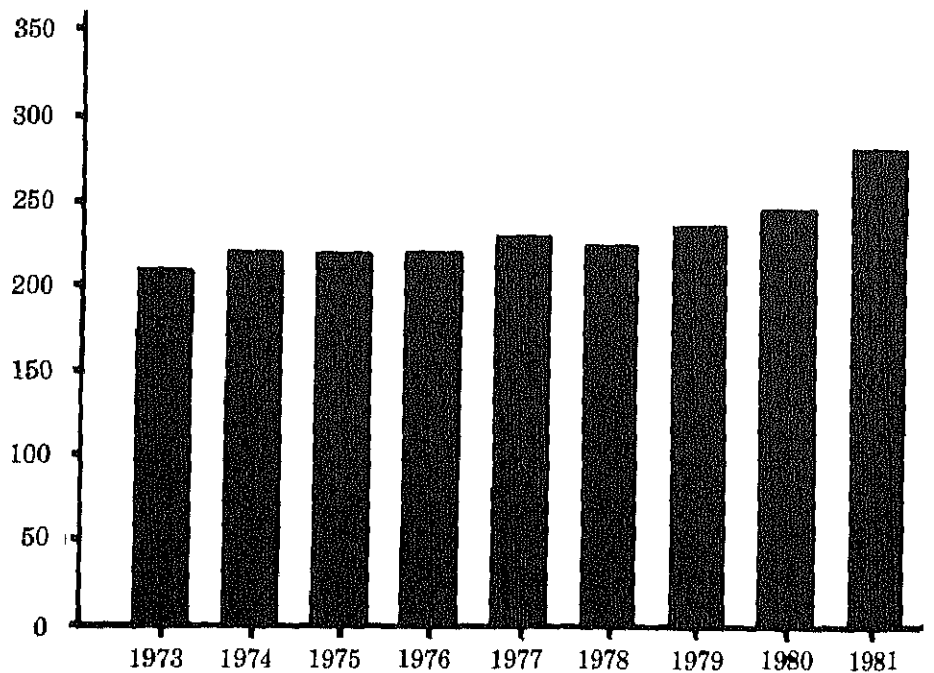
Sources: See "Sources" at the end of this section.

Liquefied Petroleum Gases and Ethane Ending Stocks, Annual
(Millions of Barrels)



Source table: "Liquefied Petroleum Gases and Ethane Supply and Disposition."

Other Petroleum Products¹ Ending Stocks, Annual
(Millions of Barrels)



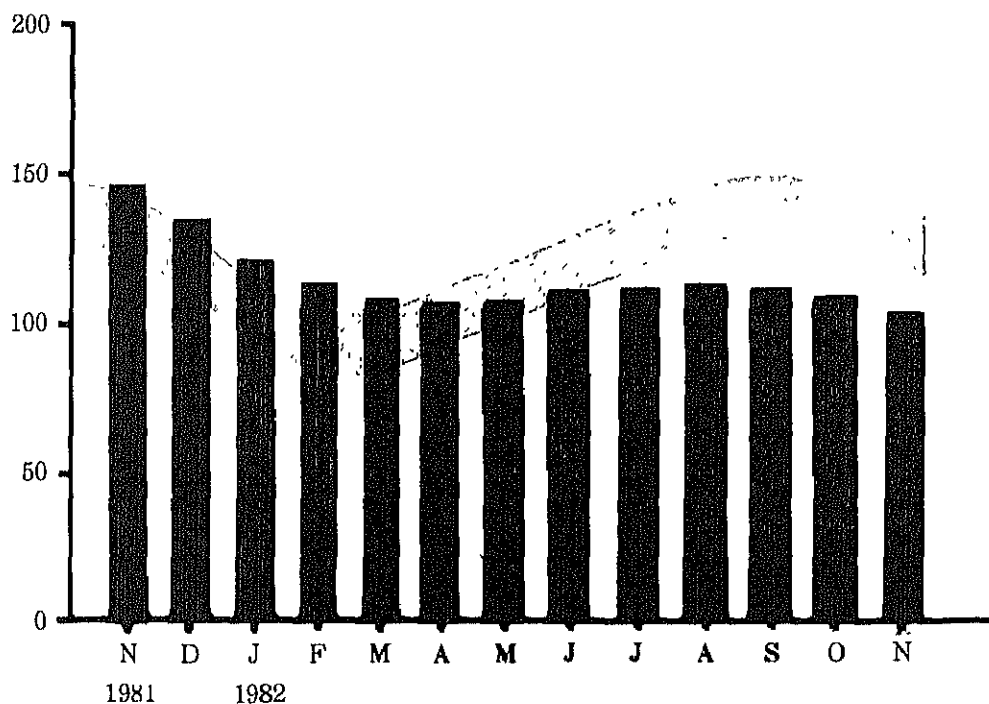
¹Includes natural gasoline and isopentane, unfinished oils, gasoline blending components, jet fuels, kerosene, lubricants, and asphalt. Some gasoline blending components not included prior to 1981.

Source table: "Other Petroleum Products Supply and Disposition."

Liquefied Petroleum Gases and Ethane Ending Stocks, Monthly (Millions of Barrels)

Legend

□ Average Stock Range¹



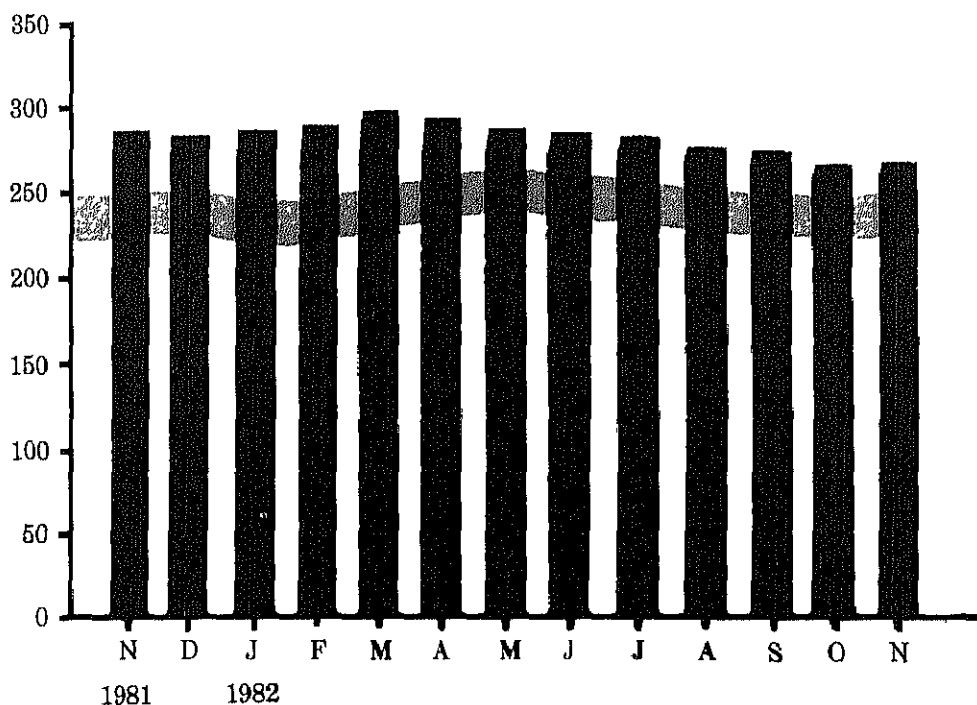
¹Average stock range based on 3 years of data. See Explanatory Note 2.5.

Source table: "Liquefied Petroleum Gases and Ethane Supply and Disposition."

Other Petroleum Products¹ Endings Stocks, Monthly (Millions of Barrels)

Legend

□ Average Stock Range²



¹Includes natural gasoline and isopentane, unfinished oils, gasoline blending components, jet fuels, kerosene, lubricants, and asphalt.

²Average stock range based on 3 years of data. See Explanatory Note 2.5.

Source table: "Other Petroleum Products Supply and Disposition."

Other Petroleum Products¹ Supply and Disposition

		Supply			Disposition			Ending Stocks ²
		Total Production	Imports	Stock Withdrawal ³	Refinery Inputs	Exports	Products Supplied	
		Thousand Barrels per Day						Millions of Barrels
1973	AVERAGE	3,693	502	-9	750	166	3,270	208
1974	AVERAGE	3,558	432	-28	665	174	3,123	218
1975	AVERAGE	3,424	277	-2	537	160	3,002	219
1976	AVERAGE	3,643	206	-5	524	175	3,145	220
1977	AVERAGE	3,912	205	-27	514	165	3,410	230
1978	AVERAGE	4,046	166	14	492	167	3,568	225
1979	AVERAGE	4,153	195	-37	352	209	3,749	238
1980	AVERAGE	3,956	210	-23	311	198	3,634	247
1981	January	3,821	162	80	851	132	3,081	296
	February	3,723	182	-200	538	208	2,958	302
	March	3,722	230	-55	642	210	3,043	304
	April	3,711	230	24	733	192	3,040	303
	May	3,892	229	-58	594	238	3,231	305
	June	3,925	218	-29	656	197	3,261	306
	July	3,852	149	284	791	212	3,282	297
	August	3,876	276	-33	676	219	3,225	298
	September	3,718	285	215	883	176	3,159	291
	October	3,503	241	193	710	227	3,000	285
	November	3,579	262	33	784	154	2,935	284
	December	3,543	243	71	805	223	2,829	282
	AVERAGE	3,739	226	46	723	199	3,088	
1982	January	3,181	240	-102	602	180	2,536	284
	February	3,364	260	-116	646	138	2,724	287
	March	3,485	241	-204	734	161	2,627	294
	April	3,394	287	91	801	204	2,767	291
	May	3,296	309	198	823	210	2,769	285
	June	3,481	315	115	815	216	2,879	281
	July	3,578	391	15	862	187	2,935	281
	August	3,519	329	256	841	202	3,060	273
	September	3,442	365	74	767	213	2,901	271
	October	3,472	367	223	901	266	2,896	264
	November*	3,464	406	-12	824	269	2,766	264
	AVERAGE	3,425	319	50	784	205	2,806	

¹ Includes natural gasoline and isopentane, unfractionated stream, plant condensate, other liquids; and all finished petroleum products except finished motor gasoline, distillate fuel oil, and residual fuel oil.

² Ending Stocks for 1973-1980 are totals as of December 31.

³ A negative number indicates an increase in stocks and a positive number indicates a decrease. Totals may not equal sum of components due to independent rounding.

* See Explanatory Note 5.6.

Note: Annual stock changes for 1975 and 1981 were calculated using expanded survey coverage. Geographic Coverage. The 50 United States and the District of Columbia.

Sources: See "Sources" at the end of this section.

Crude Oil and Petroleum Product Imports from OPEC Sources

	Algeria	Libya	Saudi Arabia	United Arab Emirates	Indonesia	Iran	Nigeria	Venezuela	Other OPEC ¹	Total OPEC	Total Arab OPEC ²
Thousand Barrels per Day											
1973											
AVERAGE	136	164	486	71	213	223	459	1,135	106	2,993	915
1974											
AVERAGE	190	4	461	74	300	469	713	979	88	3,280	752
1975											
AVERAGE	282	232	715	117	390	280	762	702	122	3,601	1,383
1976											
AVERAGE	432	453	1,230	254	539	298	1,025	700	134	5,066	2,424
1977											
AVERAGE	559	723	1,380	335	541	535	1,143	690	287	6,193	3,185
1978											
AVERAGE	649	654	1,144	385	573	555	919	645	226	5,751	2,963
1979											
AVERAGE	636	658	1,356	281	420	304	1,080	690	212	5,637	3,056
1980											
AVERAGE	488	554	1,261	172	348	9	857	481	130	4,300	2,551
1981											
January	341	500	1,284	93	424	0	908	549	27	4,127	2,219
February	381	468	1,122	93	406	0	866	463	92	3,891	2,064
March	352	485	1,027	47	328	0	771	360	54	3,425	1,912
April	263	485	1,034	68	307	0	812	237	39	3,245	1,867
May	393	443	933	17	297	0	664	331	124	3,203	1,796
June	356	380	865	60	367	0	528	248	118	2,922	1,703
July	333	251	1,073	80	340	0	651	466	38	3,233	1,757
August	348	274	1,082	61	377	0	321	523	84	3,070	1,765
September	336	154	1,477	96	371	0	323	359	149	3,264	2,063
October	242	147	1,342	90	427	0	412	389	172	3,220	1,820
November	210	132	1,270	112	353	0	517	535	56	3,184	1,724
December	176	122	1,045	158	400	0	684	411	132	3,129	1,502
AVERAGE	311	319	1,129	81	366	0	620	406	90	3,323	1,848
1982											
January	254	161	877	87	273	0	662	376	128	2,818	1,378
February	139	92	692	79	236	0	579	347	102	2,267	1,044
March	91	37	555	155	200	0	503	399	91	2,032	860
April	85	0	479	122	215	0	427	411	79	1,818	707
May	179	0	601	116	236	0	211	414	54	1,811	897
June	93	0	593	94	215	72	537	361	110	2,075	799
July	122	0	644	123	327	69	910	349	95	2,640	927
August	170	0	489	133	272	27	542	288	134	2,057	807
September	162	0	432	57	191	21	479	514	52	1,907	659
October	249	7	494	61	227	108	291	496	86	2,029	810
November	247	13	489	47	283	34	480	539	115	2,246	795
AVERAGE	163	28	577	98	243	30	511	409	96	2,155	880

¹ Includes Ecuador, Gabon, Iraq, Kuwait, and Qatar.

² Includes Algeria, Libya, Saudi Arabia, United Arab Emirates, Iraq, Kuwait, and Qatar.

Totals may not equal sum of components due to independent rounding.

Note: Beginning in October 1977, Strategic Petroleum Reserve imports are included.

Geographic coverage: The 50 United States and the District of Columbia.

Sources: See "Sources" at the end of this section.

Crude Oil and Petroleum Product Imports from Non-OPEC Sources

	Bahamas	Canada	Mexico	Netherlands Antilles	Trinidad and Tobago	United Kingdom	Puerto Rico ¹	Virgin Islands ¹	Other ²	Total
Thousand Barrels per Day										
1973										
AVERAGE	174	1,325	16	585	255	15	99	329	465	3,263
1974										
AVERAGE	164	1,070	8	511	251	8	90	391	340	2,832
1975										
AVERAGE	152	846	71	332	242	14	90	406	300	2,454
1976										
AVERAGE	118	599	87	275	274	31	88	422	353	2,247
1977										
AVERAGE	171	517	179	211	289	126	106	466	550	2,614
1978										
AVERAGE	160	467	318	229	253	180	94	429	484	2,613
1979										
AVERAGE	147	538	439	231	190	202	92	431	548	2,819
1980										
AVERAGE	78	455	533	225	176	176	88	388	491	2,609
1981										
January	39	543	401	198	150	233	89	494	552	2,701
February	84	546	437	227	163	271	46	481	626	2,881
March	74	472	488	227	93	263	45	370	571	2,603
April	68	412	418	198	139	402	40	365	380	2,423
May	122	365	522	213	105	368	58	344	474	2,573
June	51	353	538	196	124	397	67	262	525	2,513
July	77	382	384	212	178	553	50	208	541	2,583
August	69	378	489	255	123	592	68	184	539	2,698
September	111	423	708	163	169	528	72	265	661	3,100
October	63	449	669	161	121	351	60	309	562	2,739
November	63	547	628	168	108	253	76	294	421	2,557
December	70	501	587	148	125	280	73	367	563	2,714
AVERAGE	74	447	522	197	133	375	62	327	534	2,672
1982										
January	28	509	426	179	106	346	62	334	425	2,415
February	50	533	489	221	120	132	38	354	487	2,424
March	43	435	503	189	118	293	62	307	479	2,429
April	67	357	467	180	166	247	36	266	682	2,468
May	76	416	767	152	95	516	47	302	603	2,974
June	32	462	797	141	129	539	58	322	673	3,153
July	30	527	783	158	111	433	38	369	674	3,122
August	68	435	854	145	106	520	24	320	627	3,099
September	92	484	897	195	89	631	51	270	744	3,453
October	45	456	682	148	109	666	52	262	783	3,202
November	48	547	860	203	90	623	81	334	694	3,480
AVERAGE	53	469	685	173	113	452	50	313	625	2,931

¹ U.S. Possessions.

² Includes all Non-OPEC countries except those shown above.

Totals may not equal sum of components due to independent rounding.

Note: Beginning in October 1977, Strategic Petroleum Reserve imports are included.

Geographic coverage: The 50 United States and the District of Columbia.

Sources: See "Sources" at the end of this section.

Sources

- 1973 through 1976: Bureau of Mines, U.S. Department of the Interior, "Petroleum Statement, Annual" and PAD Districts Supply/Demand, Annual," Mineral Industry Surveys.
- 1977 through 1980: Energy Information Administration, U.S. Department of Energy, "Monthly Petroleum Statistics Report," (unleaded gasoline category).
- 1977 through 1980: Energy Information Administration, U.S. Department of Energy, "Petroleum Statement, Annual" and "PAD Districts Supply/Demand, Annual," "Energy Data Reports.
- January 1981 through December 1981: Energy Information Administration, U.S. Department of Energy, "Petroleum Supply Annual."
- January 1982 through November 1982: Detailed statistics in this issue. (See Explanatory Notes 5.1 through 5.6).
- December 1982: Estimates based on EIA weekly data (except domestic crude oil production). See Explanatory Note 2.2).
- January 1982 through December 1982: Domestic crude oil production estimate based on historical statistics from State Conservation Agencies and the U.S. Geological Survey. (See Explanatory Note 2.7).

Detailed Statistics



Table 1. U.S. Petroleum Balance, November 1982

	Current Month		Year-to-Date	
	Thousand Barrels	Thousand Barrels per Day	Thousand Barrels	Thousand Barrels per Day
Crude Oil (Including Lease Condensate)				
Field Production				
(1) Alaska	E 49,995	1,667	E 567,215	1,698
(2) Lower 48 States ..	E 210,715	7,024	E 2,329,297	6,974
(3) Total U.S.	E 260,710	8,690	E 2,896,512	8,672
Net Imports				
(4) Imports (Gross Excluding SPR) ...	110,480	3,683	1,115,082	3,339
(5) SPR Imports	5,387	180	56,362	169
(6) Exports	7,859	262	80,309	240
(7) Imports (Net Including SPR)	108,018	3,601	1,091,135	3,267
Other Sources				
(8) SPR Withdrawal (+) or Addition (-)	-5,371	-179	-59,822	-179
(9) Other Stock Withdrawal (+) or Addition (-)	-5,325	-177	7,437	22
(10) Used Directly and Losses	-1,560	-52	-20,807	-62
(11) Unaccounted for 1	-4,239	-141	26,823	80
(12) Total Other Sources	-16,495	-550	-46,169	-138
(13) Crude Input to Refineries	352,232	11,741	3,941,478	11,801
(13) = (3) + (7) + (12)				
Natural Gas Plant Liquids (NGPL)				
(14) Field Production	49,017	1,634	516,391	1,546
(15) Imports 2	1,179	39	7,523	23
(16) Stock Withdrawal (+) or Addition (-) 2	-995	-33	3,134	9
(17) Total NGPL Supply	49,200	1,640	527,048	1,578
Other Liquids				
Unfinished Oils and Gasoline Blending Components, Total				
(18) Stock Withdrawal (+) or Addition (-)	3,242	108	8,857	27
(19) Imports	6,730	224	56,271	168
(20) Other Hydrocarbons and Alcohol New Supply (Field Production)	1,595	53	17,681	53
(21) Refinery Processing Gain 1	17,122	571	174,092	521
(22) Crude Used Directly	1,513	50	19,798	59
(23) Total Other Liquids	30,202	1,007	276,699	828
(23) = (18) through (22)				
(24) Total Production of Products 3	431,634	14,368	4,745,225	14,207
(24) = (13) + (17) + (23)				
Net Imports of Refined Products 3				
(25) Imports (Gross)	48,000	1,600	483,519	1,388
(26) Exports	15,723	524	190,548	571
(27) Imports (Net)	32,277	1,076	272,971	817
(28) Total New Supply of Products	463,911	15,464	5,018,196	15,025
(28) = (24) + (27)				
(29) Refined Products Stock Withdrawal (+) or Addition (-) 3	-12,969	-432	68,687	206
(30) Total Petroleum Products Supplied for Domestic Use	450,942	15,031	5,086,883	15,230
(30) = (28) + (29)				
(31) Finished Motor Gasoline	196,783	6,559	2,183,254	6,537
(32) Naphtha-Type Jet Fuel	6,348	212	69,192	207
(33) Kerosene-Type Jet Fuel	25,076	836	266,448	798
(34) Kerosene	4,196	140	40,985	123
(35) Distillate Fuel Oil	74,248	2,475	888,301	2,660
(36) Residual Fuel Oil	47,913	1,597	568,697	1,703
(37) Liquefied Petroleum Gases and Ethane	49,028	1,634	508,341	1,522
(38) Other	54,373	1,812	668,461	2,001
(39) Total Reclassified 1	-7,023	-234	-106,792	-320
(40) Total Product Supplied	450,942	15,031	5,086,885	15,230
(40) = (31) through (39)				
Ending Stocks, All Oils				
(41) Crude Oil and Lease Condensate (Excluding SPR)	356,027	—	356,027	—
(42) Strategic Petroleum Reserve (SPR)	289,963	—	289,963	—
(43) Unfinished Oils	111,679	—	111,679	—
(44) Gasoline Blending Components	41,243	—	41,243	—
(45) Natural Gasoline and Unfractionated Stream	12,385	—	12,385	—
(46) Finished Refined Products 3	643,858	—	643,858	—
(47) Total Stocks	1,455,155	—	1,455,155	—

1 A balancing item.

2 Includes isopentane, natural gasoline, unfractionated stream, and plant condensate only.

3 For products included see Explanatory Note 5.7.

E = Estimated.

— Not Applicable.

Note: Total may not equal sum of components due to independent rounding.

Sources and estimation procedures: See Explanatory Notes 1, 2, and 5.7.

Table 2. Supply and Disposition of Crude Oil and Petroleum Products, November 1982
(Thousands of Barrels)

Commodity	Supply				Disposition			Ending Stocks		
	Field Production	Refinery Production	Imports	Stock Withdrawal (+) or Addition (-)	Unaccounted For Crude Oil ¹	Crude Used Directly and Losses ²	Refinery Inputs		Exports	Products Supplied
Crude Oil (including lease condensate)	E 260,710	0	115,876	-10,696	-4,240	-1,560	352,232	7,859	0	645,990
Natural Gas Plant Liquids and LRGs	48,710	7,774	9,180	4,161	0	0	17,212	1,115	51,498	115,852
Natural Gasoline and Isopentane	6,530	0	978	48	0	0	5,111	0	2,444	6,326
Unfractionated Stream	936	0	0	-912	0	0	0	0	23	4,414
Plant Condensate	940	0	201	-131	0	0	1,008	0	2	1,645
Liquefied Petroleum Gases and Ethane	40,305	7,774	8,001	5,156	0	0	11,093	1,115	49,028	103,467
Ethane	8,703	47	1,256	-246	0	0	34	(9)	9,725	5,406
Propane	13,616	7,871	3,074	3,816	0	0	134	469	27,773	57,870
Butane	6,298	-172	1,902	2,943	0	0	7,392	646	2,933	19,792
Butane-Propane Mixtures	132	57	1,161	-36	0	0	368	0	947	1,395
Ethane-Propane Mixtures	8,373	0	609	-1,302	0	0	0	0	7,680	9,654
Isobutane	3,183	-29	0	-19	0	0	3,165	0	-30	9,350
Other Liquids	1,595	0	6,730	3,242	0	0	18,590	0	-7,023	152,922
Other Hydrocarbons and Alcohol	1,595	0	0	-20	0	0	1,575	0	0	211
Unfinished Oils	0	0	4,907	1,659	0	0	12,040	0	-5,474	111,679
Motor Gasoline Blending Components	0	0	1,823	1,577	0	0	5,027	0	-1,627	40,681
Aviation Gasoline Blending Components	0	0	0	26	0	0	-52	0	78	351
Finished Petroleum Products	306	397,382	39,999	-18,126	0	1,513	0	14,608	406,467	540,391
Finished Motor Gasoline	71	188,128	6,194	2,733	0	0	0	343	196,783	189,362
Finished Leaded Motor Gasoline	68	90,855	3,694	-934	0	0	0	343	93,340	95,678
Finished Unleaded Motor Gasoline	3	97,185	2,500	3,668	0	0	0	0	103,356	93,633
Gasohol	0	88	0	-1	0	0	0	0	87	51
Finished Aviation Gasoline	55	670	(5)	-308	0	0	0	0	417	2,520
Naphtha-Type Jet Fuel	0	5,993	0	355	0	0	0	(5)	6,348	6,035
Kerosene-Type Jet Fuel	0	24,496	861	-12	0	0	0	269	25,076	34,508
Kerosene	2	4,308	1,011	-1,125	0	0	0	1	4,196	11,345
Distillate Fuel Oil	2	85,903	4,229	-15,405	0	234	0	715	74,248	185,592
Residual Fuel Oil	0	29,668	25,297	-2,857	0	1,279	0	5,475	47,913	66,431
Naphtha < 400 Deg for Petro. Feed. Use	0	4,567	558	-190	0	0	0	71	4,864	2,000
Other Oils > 400 Deg. for Petro Feed. Use	0	6,748	0	12	0	0	0	522	6,238	2,194
Special Naphthas	60	1,266	828	341	0	0	0	41	2,454	3,460
Lubricants	0	4,450	751	-4	0	0	0	395	4,803	12,648
Waxes	0	446	78	-10	0	0	0	18	496	754
Petroleum Coke	0	12,714	0	-851	0	0	0	6,716	5,147	6,693
Asphalt	0	9,705	192	-964	0	0	0	8	8,925	14,091
Road Oil	0	24	0	-2	0	0	0	0	22	54
Still Gas	0	15,852	0	0	0	0	0	0	15,852	0
Miscellaneous Products	116	2,444	1	161	0	0	0	36	2,685	2,704
Total	311,322	405,156	171,786	-21,419	-4,240	-47	388,034	23,582	450,942	1,455,155

¹ Unaccounted for crude oil is a balance item.

¹ Unaccounted for crude oil is a balancing item.

² Total equals refinery fuel use and loss.

(5) Less than 500 barrels.

E = Estimated.

Note: Total may not equal sum of components due to independent rounding.

Sources and estimation procedures: See Explanatory Notes on Data Collection and Estimation

Table 3. Year-to-Date Supply and Disposition Statistics of Crude Oil and Petroleum Products, January - November 1982
(Thousands of Barrels)

Commodity	Supply					Disposition			Ending Stocks	
	Field Production	Refinery Production	Imports	Stock Withdrawal (+) or Addition (-)	Unaccounted For Crude Oil ¹	Crude Used Directly and Losses ²	Refinery Inputs	Exports		Products Supplied
Crude Oil (including lease condensate)	Σ 2,896,512	0	1,171,444	-52,185	26,823	-20,807	3,941,478	80,309	0	645,990
Natural Gas Plant Liquids and LRGs	511,544	90,654	81,827	34,318	0	0	170,131	21,857	526,356	115,852
Natural Gasoline and Isopentane	68,208	0	5,814	3,067	0	0	59,413	0	17,676	6,326
Unfractionated Stream	154	0	0	138	0	0	8	0	284	4,414
Plant Condensate	11,348	0	1,710	-71	0	0	12,932	0	56	1,645
Liquefied Petroleum Gases and Ethane	431,833	90,654	74,304	31,184	0	0	97,778	21,857	508,341	103,467
Ethane	92,112	1,418	15,682	-491	0	0	1,344	1	107,375	5,406
Propane	153,989	84,299	21,320	17,688	0	0	1,326	10,392	265,578	57,870
Butane	73,378	3,510	19,366	7,462	0	0	57,139	11,464	35,113	19,792
Butane-Propane Mixtures	1,376	1,413	8,065	357	0	0	1,844	0	9,366	1,395
Ethane-Propane Mixtures	74,160	0	9,871	6,780	0	0	46	0	90,765	9,654
Isobutane	36,819	14	0	-612	0	0	36,079	0	142	9,350
Other Liquids	17,681	0	56,271	8,857	0	0	189,601	0	-106,792	152,922
Other Hydrocarbons and Alcohol	17,681	0	0	-3	0	0	17,678	0	0	211
Unfinished Oils	0	0	43,235	-331	0	0	113,034	0	-70,130	111,679
Motor Gasoline Blending Components	0	0	13,036	8,851	0	0	59,446	0	-37,559	40,681
Aviation Gasoline Blending Components	0	0	0	340	0	0	-557	0	897	351
Finished Petroleum Products	4,849	4,384,648	389,215	37,503	0	19,798	0	168,691	4,667,322	540,391
Finished Motor Gasoline	545	2,113,237	62,351	14,107	0	0	0	6,987	2,183,254	189,362
Finished Leaded Motor Gasoline	523	1,003,052	39,689	12,407	0	0	0	6,987	1,048,684	95,678
Finished Unleaded Motor Gasoline	23	1,109,101	22,662	1,692	0	0	0	0	1,133,478	93,633
Gasohol	0	1,084	0	8	0	0	0	0	1,092	51
Finished Aviation Gasoline	662	7,836	2	213	0	0	0	0	8,713	2,520
Naphtha-Type Jet Fuel	0	66,776	1,682	1,019	0	0	0	285	69,192	6,035
Kerosene-Type Jet Fuel	2	260,320	7,721	-497	0	0	0	1,098	266,448	34,508
Kerosene	38	37,531	4,032	-303	0	0	0	314	40,985	11,345
Distillate Fuel Oil	26	871,126	30,455	5,949	0	3,434	0	22,689	888,301	185,592
Residual Fuel Oil	0	357,938	253,510	11,561	0	16,364	0	70,677	588,697	66,431
Naphtha < 400 Deg. for Petro. Feed.	0	50,626	16,742	469	0	0	0	1,317	86,520	2,000
Other Oils > 400 Deg. for Petrochem. Feedstock	0	88,799	0	-444	0	0	0	6,568	81,787	2,194
Special Naphthas	843	17,190	6,635	504	0	0	0	1,727	23,445	3,460
Lubricants	0	48,012	3,302	1,656	0	0	0	5,573	47,397	12,648
Waxes	0	4,686	432	-84	0	0	0	231	4,803	754
Petroleum Coke	0	136,008	0	-2,191	0	0	0	50,516	83,301	6,693
Asphalt	0	112,056	1,671	5,496	0	0	0	285	118,938	14,091
Road Oil	0	601	2	-28	0	0	0	0	575	54
Still Gas	0	185,438	0	0	0	0	0	0	185,438	0
Miscellaneous Products	2,733	26,468	677	76	0	0	0	424	29,529	2,704
Total	3,430,586	4,475,302	1,698,757	28,493	26,823	-1,009	4,301,210	270,857	5,086,885	1,455,155

¹ Unaccounted for crude oil is a balancing item.

² Total equals refinery fuel use and loss.

Σ Estimated.

Note: Total may not equal sum of components due to independent rounding.

Sources and estimation procedures: See Explanatory Notes on Data Collection and Estimation.

TABLE 7. Daily Average Supply and Disposition of Crude Oil and Petroleum Products, November 1982
(Thousand Barrels per Day)

Commodity	Supply					Disposition			
	Field Production	Refinery Production	Imports	Stock Withdrawal (+) Addition (-)	Unaccounted For Crude Oil	Crude Used Directly and Losses ²	Refinery Inputs	Exports	Products Supplied
Crude Oil (including lease condensate)	E 8,690	0	3,863	-357	-141	-52	11,741	262	0
Natural Gas Plant Liquids and LRGs	1,624	259	306	139	0	0	574	37	1,717
Natural Gasoline and Isopentane	218	0	33	2	0	0	170	0	81
Unfractionated Stream	31	0	0	-30	0	0	0	0	1
Plant Condensate	31	0	7	-4	0	0	34	0	(s)
Liquefied Petroleum Gases and Ethane	1,343	259	267	172	0	0	370	37	1,634
Propane	290	2	42	-8	0	0	1	(s)	324
Butane	454	262	102	127	0	0	4	16	926
Butane-Propane Mixtures	210	-6	63	98	0	0	246	22	98
Ethane-Propane Mixtures	4	2	39	-1	0	0	12	0	32
Isobutane	279	0	20	-43	0	0	0	0	256
	106	-1	0	-1	0	0	105	0	-1
Other Liquids	53	0	224	108	0	0	620	0	-234
Other Hydrocarbons and Alcohol	53	0	0	-1	0	0	52	0	0
Unfinished Oils	0	0	164	55	0	0	401	0	-182
Motor Gasoline Blending Components	0	0	61	53	0	0	168	0	-54
Aviation Gasoline Blending Components	0	0	0	1	0	0	-2	0	3
Finished Petroleum Products	10	13,246	1,333	-604	0	50	0	487	13,549
Finished Motor Gasoline	2	6,271	206	91	0	0	0	11	6,559
Finished Leaded Motor Gasoline	2	3,028	123	-31	0	0	0	11	3,111
Finished Unleaded Motor Gasoline	(s)	3,239	83	122	0	0	0	0	3,445
Gasohol	0	3	0	(s)	0	0	0	0	3
Finished Aviation Gasoline	2	22	0	-10	0	0	0	0	14
Naphtha-Type Jet Fuel	0	200	0	12	0	0	0	(s)	212
Kerosene-Type Jet Fuel	0	817	29	(s)	0	0	0	9	836
Kerosene	(s)	144	34	-37	0	0	0	(s)	140
Distillate Fuel Oil	(s)	2,863	141	-514	0	8	0	24	2,475
Residual Fuel Oil	0	989	843	-95	0	43	0	182	1,597
Naphtha < 400 Deg. for Petro. Feed. Use	0	152	19	-6	0	0	0	2	162
Other Oils > 400 Deg. for Petro. Feed. Use	0	225	0	(s)	0	0	0	17	208
Special Naphthas	2	42	28	11	0	0	0	1	82
Lubricants	0	148	25	(s)	0	0	0	13	160
Waxes	0	15	3	(s)	0	0	0	1	17
Petroleum Coke	0	424	0	-28	0	0	0	224	172
Asphalt	0	323	6	-32	0	0	0	(s)	297
Road Oil	0	1	0	(s)	0	0	0	0	1
Still Gas	0	528	0	0	0	0	0	0	528
Miscellaneous Products	0	81	0	5	0	0	0	1	90
	4	81	(s)	0	0	0	0	0	0
Total	10,377	13,505	5,726	-714	-141	-2	12,934	786	15,031

1 Unaccounted for crude oil is a balancing item.
2 Total equals refinery fuel use and loss.

¹ Unaccounted for crude oil is a balancing item.

² Total equals refinery fuel use and loss.

(s) Less than 500 barrels per day.

E = Estimated.

Note: Total may not equal sum of components due to independent rounding.

Sources and estimation procedures: See Explanatory Notes on Data Collection and Estimation.

Table 5. Year-to-Date Daily Average Supply and Disposition of Crude Oil and Petroleum Products, January - November 1982
(Thousand Barrels per Day)

Commodity	Supply					Disposition			
	Field Production	Refinery Production	Imports	Stock Withdrawal(+) Addition(-)	Unaccounted For Crude Oil ¹	Crude Used Directly and Losses ²	Refinery Inputs	Exports	Products Supplied
Crude Oil (including lease condensate)	E 8,672	0	3,507	-156	80	-62	11,801	240	0
Natural Gas Plant Liquids and LRGs	1,532	271	245	103	0	0	509	65	1,576
Natural Gasoline and Isopentane	204	0	17	9	0	0	178	0	53
Unfractionated Stream	(s)	0	0	(s)	0	0	(s)	0	1
Plant Condensate	34	0	5	(s)	0	0	39	0	(s)
Liquefied Petroleum Gases and Ethane	1,293	271	222	93	0	0	293	65	1,522
Ethane	276	4	47	-1	0	0	4	(s)	321
Propane	461	252	64	53	0	0	4	31	795
Butane	220	11	58	22	0	0	171	34	105
Butane-Propane Mixtures	4	4	24	1	0	0	6	0	28
Ethane-Propane Mixtures	222	0	30	20	0	0	(s)	0	272
Isobutane	110	(s)	0	-2	0	0	108	0	(s)
Other Liquids	53	0	168	27	0	0	568	0	-320
Other Hydrocarbons and Alcohol	53	0	0	(s)	0	0	53	0	0
Unfinished Oils	0	0	129	-1	0	0	338	0	-210
Motor Gasoline Blending Components	0	0	39	26	0	0	178	0	-112
Aviation Gasoline Blending Components	0	0	0	1	0	0	-2	0	3
Finished Petroleum Products	15	13,128	1,165	112	0	59	0	505	13,974
Finished Motor Gasoline	2	6,327	187	42	0	0	0	21	6,537
Finished Leaded Motor Gasoline	2	3,003	119	37	0	0	0	21	3,140
Finished Unleaded Motor Gasoline	(s)	3,321	68	5	0	0	0	0	3,394
Gasohol	0	3	0	(s)	0	0	0	0	3
Finished Aviation Gasoline	2	23	(s)	1	0	0	0	0	26
Naphtha-Type Jet Fuel	0	200	5	3	0	0	0	1	207
Kerosene-Type Jet Fuel	(s)	779	23	-1	0	0	0	3	798
Kerosene	(s)	112	12	-1	0	0	0	1	123
Distillate Fuel Oil	(s)	2,608	91	18	0	10	0	68	2,660
Residual Fuel Oil	0	1,072	759	35	0	49	0	212	1,703
Naphtha < 400 Deg. for Petro. Feed. Use	0	152	50	1	0	0	0	4	199
Other Oils > 400 Deg. for Petro. Feed. Use	0	266	0	-1	0	0	0	20	245
Special Naphthas	3	51	20	2	0	0	0	5	70
Lubricants	0	144	10	5	0	0	0	17	142
Waxes	0	14	1	(s)	0	0	0	1	14
Petroleum Coke	0	407	0	-7	0	0	0	151	249
Asphalt	0	335	5	16	0	0	0	1	356
Road Oil	0	2	(s)	(s)	0	0	0	0	2
Still Gas	0	555	0	0	0	0	0	0	555
Miscellaneous Products	8	79	2	(s)	0	0	0	1	88
Total	10,271	13,399	5,086	85	80	-3	12,878	811	15,230

1 Unaccounted for crude oil is a balancing item.

2 Total equals refinery fuel use and loss.

(s) Less than 500 barrels per day.

E Estimated.

Note: Total may not equal sum of components due to independent rounding.

Sources and estimation procedures: See Explanatory Notes on Data Collection and Estimation.

Table 6. P Supply and Disposition of Crude Oil and Petroleum Products, November 1982
(Thousands of Barrels)

Commodity	Field Production	Refinery Production	Imports	Supply Stock Withdrawal (+) or Addition (-)	Unaccounted For Crude Oil ¹	Crude Used Directly and Losses ²	Net Receipts	Disposition			Ending Stocks
								Refinery Inputs	Exports	Products Supplied	
Crude Oil (including lease condensate)	E 2,651	0	32,039	-397	-917	0	2,059	35,435	0	0	18,724
Natural Gas Plant Liquids and LRGs											
Liquefied Petroleum Gases	928	1,185	729	-17	0	0	2,681	220	40	5,225	5,443
Ethane	444	1,165	580	-8	0	0	2,681	205	40	4,617	5,406
Other Products ³	299	0	(s)	0	0	0	0	0	0	299	0
	185	0	149	-9	0	0	0	15	0	310	37
Other Liquids											
Other Hydrocarbons and Alcohol	98	0	2,504	-239	0	0	963	2,263	0	1,063	19,840
Unfinished Oils	98	0	0	4	0	0	0	102	0	0	15
Motor Gasoline Blending Components	0	0	1,763	182	0	0	963	3,293	0	-385	14,835
Aviation Gasoline Blending Components	0	0	741	-429	0	0	0	-1,136	0	1,448	4,990
	0	0	0	4	0	0	0	4	0	0	0
Finished Petroleum Products											
Finished Motor Gasoline	44	38,848	34,629	-21,334	0	0	84,969	0	191	136,964	212,831
Finished Leaded Motor Gasoline	44	16,591	4,976	-2,201	0	0	45,148	0	(s)	64,557	61,166
Finished Unleaded Motor Gasoline	44	7,120	2,740	-1,203	0	0	20,211	0	(s)	28,911	28,780
Gasohol	0	9,471	2,236	-993	0	0	24,937	0	0	35,651	32,379
Finished Aviation Gasoline	0	0	0	-5	0	0	0	0	0	-5	7
Naphtha-Type Jet Fuel	0	12	(s)	-190	0	0	158	0	0	-20	516
Kerosene-Type Jet Fuel	0	452	0	157	0	0	543	0	0	1,152	370
Kerosene	0	579	861	-540	0	0	10,442	0	(s)	11,342	10,074
Distillate Fuel Oil	0	332	1,011	-1,311	0	0	1,223	0	0	1,254	5,764
Residual Fuel Oil	0	10,248	3,731	-12,963	0	0	22,789	0	(s)	23,805	88,691
Naphtha and Other Oils for Petrochem	0	4,050	22,780	-3,595	0	0	2,859	0	1	26,093	36,369
Feedstock	0	0	0	0	0	0	0	0	0	0	0
Special Naphthas	0	359	87	-96	0	0	49	0	0	352	198
Lubricants	0	-112	286	210	0	0	203	0	47	583	840
Waxes	0	622	717	-216	0	0	330	0	5	1,346	3,313
Petroleum Coke	0	96	52	2	0	0	13	0	107	158	175
Asphalt	0	1,187	0	-248	0	0	0	0	3	936	1,174
Road Oil	0	2,321	125	-341	0	0	390	0	4	2,491	3,768
Still Gas	0	0	0	0	0	0	0	0	0	0	0
Miscellaneous Products	0	1,663	0	0	0	0	0	0	0	1,663	0
	0	448	1	-2	0	0	822	0	17	1,251	413
Total	3,720	40,013	69,901	-21,988	-917	0	90,672	37,918	231	143,252	256,838

¹ Unaccounted for crude oil is a balancing item.

² Total equals refinery fuel use and loss.

³ Includes natural gasoline, isopentane, unfractionated stream, and plant condensate.

(s) Less than 500 barrels.

E Estimated.

Note: Total may not equal sum of components due to independent rounding.

Sources and estimation procedures: See Explanatory Notes on Data Collection and Estimation.

Table 7. PAD District II Supply and Disposition of Crude Oil and Petroleum Products, November 1982
(Thousands of Barrels)

Commodity	Supply				Disposition						
	Field Production	Refinery Production	Imports	Stock Withdrawal (+) or Addition (-)	Unaccounted For Crude Oil ¹	Crude Used Directly and Losses ²	Net Receipts	Refinery Inputs	Exports	Products Supplied	Ending Stocks
Crude Oil (including lease condensate)	E 31,299	0	18,872	-3,583	32,374	-9	1,574	79,320	1,207	0	77,744
Natural Gas Plant Liquids and LRGs	9,401	2,022	5,056	851	0	0	4,244	5,584	8	15,982	31,450
Liquefied Petroleum Gases	8,003	2,005	3,801	2,602	0	0	3,009	4,217	8	15,195	25,335
Ethane	2,596	17	1,256	-433	0	0	0	0	0	1,760	1,760
Other Products ³	-1,198	0	0	-1,318	0	0	1,235	1,367	0	-2,648	4,355
Other Liquids	148	0	583	793	0	0	749	2,844	0	-571	28,321
Other Hydrocarbons and Alcohol	148	0	0	-38	0	0	0	110	0	0	88
Unfinished Oils	0	0	250	327	0	0	0	686	0	-109	19,991
Motor Gasoline Blending Components	0	0	332	466	0	0	749	2,010	0	-463	8,138
Aviation Gasoline Blending Components	0	0	0	38	0	0	0	38	0	0	104
Finished Petroleum Products	13	89,825	724	802	0	0	18,321	0	621	109,064	127,763
Finished Motor Gasoline	0	48,883	2	2,520	0	0	12,514	0	51	63,868	55,883
Finished Leaded Motor Gasoline	0	25,458	0	592	0	0	6,437	0	51	32,436	29,761
Finished Unleaded Motor Gasoline	0	23,405	2	1,922	0	0	6,077	0	0	31,406	26,085
Gasohol	0	20	0	6	0	0	0	0	0	26	37
Finished Aviation Gasoline	0	100	0	-60	0	0	121	0	0	161	567
Naphtha-Type Jet Fuel	0	922	0	-33	0	0	189	0	0	1,078	1,328
Kerosene-Type Jet Fuel	0	3,654	0	-3	0	0	1,530	0	0	5,181	7,075
Kerosene	0	730	0	160	0	0	146	0	(s)	1,036	2,795
Distillate Fuel Oil	1	20,757	(s)	-1,001	0	0	3,649	0	(s)	23,406	45,257
Residual Fuel Oil	0	2,693	514	78	0	0	-483	0	0	2,802	4,996
Naphtha and Other Oils for Petro Feed	0	1,370	99	50	0	0	47	0	35	1,531	261
Special Naphthas	0	398	92	-39	0	0	106	0	1	556	662
Lubricants	0	764	6	-83	0	0	320	0	12	995	1,926
Waxes	0	42	3	-4	0	0	0	0	(s)	41	58
Petroleum Coke	0	3,014	0	-245	0	0	0	0	522	2,247	2,033
Asphalt	0	3,243	9	-540	0	0	107	0	1	2,819	4,771
Road Oil	0	3	0	0	0	0	0	0	0	3	20
Still Gas	0	3,115	0	0	0	0	0	0	0	3,115	0
Miscellaneous Products	12	137	0	2	0	0	75	0	(s)	225	122
Total	40,861	91,847	25,235	-1,137	32,374	-9	24,888	87,748	1,836	124,475	265,278

¹ Unaccounted for crude oil is a balancing item.

² Total equals refinery fuel use and loss.

³ Includes natural gasoline, isopentane, unfractionated stream, and plant condensate.

(s) Less than 500 barrels

E Estimated

Note: Total may not equal sum of components due to independent rounding

Sources and estimation procedures: See Explanatory Notes on Data Collection and Estimation.

TABLE 5. P.A. District III Supply and Disposition of Crude Oil and Petroleum Products, November 1982
(Thousands of Barrels)

Commodity	Field Production	Refinery Production	Imports	Supply			Disposition			Ending Stocks
				Crude Used Directly and Losses ²	Unaccounted For Crude Oil	Net Receipts	Refinery Inputs	Exports	Products Supplied	
Crude Oil (including lease condensate)	E 126,252	0	57,447	-11,431	-23,881	16,269	164,642	0	0	454,162
Natural Gas Plant Liquids and LRGs	35,191	3,535	2,145	3,352	0	-6,526	9,501	926	27,270	75,547
Liquefied Petroleum Gases	21,689	3,515	1,167	2,783	0	-5,657	5,100	926	17,471	64,296
Ethane	5,800	20	0	187	0	0	34	(9)	5,973	3,646
Other Products ³	7,702	0	978	382	0	-869	4,367	0	3,826	7,605
Other Liquids										
Other Hydrocarbons and Alcohol	817	0	3,407	2,296	0	-1,712	11,134	0	-6,326	66,670
Unfinished Oils	0	0	0	9	0	0	826	0	0	108
Motor Gasoline Blending Components	0	0	2,893	681	0	-963	6,423	0	-3,812	48,909
Aviation Gasoline Blending Components	0	0	514	1,622	0	-749	3,981	0	-2,594	17,444
	0	0	0	-16	0	0	-96	0	80	209
Finished Petroleum Products	207	189,022	2,882	3,491	0	-107,171	0	7,228	81,205	135,247
Finished Motor Gasoline	0	86,867	(9)	2,688	0	-59,701	0	280	29,574	48,046
Finished Leaded Motor Gasoline	0	40,775	(9)	209	0	-27,727	0	280	12,977	24,474
Finished Unleaded Motor Gasoline	0	46,091	0	2,479	0	-31,974	0	0	16,596	23,572
Gasohol	0	1	0	0	0	0	0	0	1	0
Finished Aviation Gasoline	55	329	0	-19	0	-288	0	0	77	716
Naphtha-Type Jet Fuel	0	2,521	0	488	0	-868	0	0	2,141	2,546
Kerosene-Type Jet Fuel	0	13,365	0	654	0	-12,778	0	245	995	11,182
Kerosene	2	3,058	0	-55	0	-1,369	0	0	1,637	2,629
Distillate Fuel Oil	1	40,781	330	160	1	-26,692	0	304	14,286	36,858
Residual Fuel Oil	0	13,484	1,666	-558	0	-2,851	0	2,127	9,614	16,141
Naphtha and Other Oils for Petro Feed	0	8,596	350	-115	0	-86	0	509	8,235	3,037
Special Naphthas	80	935	433	80	0	-309	0	35	1,166	1,754
Lubricants	0	2,408	28	-2	0	-832	0	219	1,383	6,149
Waxes	0	238	18	-12	0	-13	0	8	224	456
Petroleum Coke	0	4,771	0	0	0	0	0	3,486	1,285	802
Asphalt	0	2,610	57	8	0	-497	0	(9)	2,178	3,077
Road Oil	0	0	0	1	0	0	0	0	1	1
Still Gas	0	7,326	0	0	0	0	0	0	7,326	0
Miscellaneous Products	89	1,723	0	173	0	-887	0	15	1,083	1,852
Total	162,467	192,557	65,882	-2,292	-23,881	-99,140	185,277	8,154	102,149	731,625

1 Unaccounted for crude oil is a balancing item

2 Total equals refinery fuel use and loss.

3 Includes natural gasoline, isopentane, unfractionated stream, and plant condensate

(9) Less than 500 barrels

E Estimated.

Note: Total may not equal sum of components due to independent rounding.

Sources and estimation procedures: See Explanatory Notes on Data Collection and Estimation

Table 9. PAD District IV Supply and Disposition of Crude Oil and Petroleum Products, November 1982
(Thousands of Barrels)

Commodity	Supply					Disposition			Ending Stocks		
	Field Production	Refinery Production	Imports	Stock Withdrawal (+) or Addition (-)	Unaccounted For Crude Oil ¹	Crude Used Directly and Losses ²	Net Receipts	Refinery Inputs		Exports	Products Supplied
Crude Oil (including lease condensate)	E 17,087	0	1,738	-1,092	-4,888	-8	0	12,837	0	0	12,885
Natural Gas Plant Liquids and LRGs	2,278	113	622	-88	0	0	-399	578	0	1,948	1,351
Liquefied Petroleum Gases	893	113	570	-33	0	0	-33	435	0	1,075	1,019
Ethane	9	0	0	(s)	0	0	0	0	0	8	(s)
Other Products ³	1,377	0	52	-55	0	0	-366	143	0	865	332
Other Liquids	39	0	0	-123	0	0	0	-319	0	235	4,619
Other Hydrocarbons and Alcohol	39	0	0	0	0	0	0	39	0	0	0
Unfinished Oils	0	0	0	115	0	0	0	-244	0	359	2,733
Motor Gasoline Blending Components	0	0	0	-238	0	0	0	-114	0	-124	1,886
Aviation Gasoline Blending Components	0	0	0	0	0	0	0	0	0	0	0
Finished Petroleum Products	43	13,280	1	-674	0	8	180	0	2	12,836	12,302
Finished Motor Gasoline	28	7,034	0	-482	0	0	205	0	0	6,784	5,276
Finished Leaded Motor Gasoline	24	4,539	0	-402	0	0	-161	0	0	4,000	3,276
Finished Unleaded Motor Gasoline	3	2,492	0	-80	0	0	366	0	0	2,781	1,999
Gasohol	0	3	0	0	0	0	0	0	0	3	1
Finished Aviation Gasoline	0	20	0	2	0	0	9	0	0	31	55
Naphtha-Type Jet Fuel	0	446	0	-47	0	0	-192	0	0	207	346
Kerosene-Type Jet Fuel	0	531	0	-14	0	0	578	0	0	1,095	623
Kerosene	0	79	0	5	0	0	0	0	0	84	34
Distillate Fuel Oil	0	3,409	(s)	40	0	0	-420	0	0	3,029	3,509
Residual Fuel Oil	0	353	0	32	0	8	0	0	0	393	513
Naphtha and Other Oils for Petro Feed	0	0	0	0	0	0	0	0	(s)	0	0
Special Naphthas	0	2	1	2	0	0	0	0	0	5	8
Lubricants	0	9	0	14	0	0	0	0	(s)	23	69
Waxes	0	21	0	-6	0	0	0	0	0	15	10
Petroleum Coke	0	299	0	-52	0	0	0	0	(s)	247	713
Asphalt	0	577	0	-171	0	0	0	0	1	405	1,144
Road Oil	0	0	0	3	0	0	0	0	0	3	0
Still Gas	0	473	0	0	0	0	0	0	0	473	0
Miscellaneous Products	15	27	0	(s)	0	0	0	0	(s)	43	2
Total	19,447	13,393	2,361	-1,977	-4,888	0	-219	13,096	2	15,020	31,157

1 Unaccounted for crude oil is a balancing item.

2 Total equals refinery fuel use and loss.

3 Includes natural gasoline, isopentane, unifractionated stream, and plant condensate.

(s) Less than 500 barrels.

E Estimated.

Note: Total may not equal sum of components due to independent rounding.

Sources and estimation procedures: See Explanatory Notes on Data Collection and Estimation.

Table 8. PAD District III Supply and Disposition of Crude Oil and Petroleum Products, November 1982
(Thousands of Barrels)

Commodity	Field Production	Refinery Production	Imports	Supply Stock Withdrawal (+) or Addition (-)	Unaccounted For Crude Oil ¹	Crude Used Directly and Losses ²	Net Receipts	Refinery Inputs	Disposition		Ending Stocks
									Exports	Products Supplied	
Crude Oil (including lease condensate)	E 126,252	0	57,447	-11,431	-23,881	-14	16,269	164,642	0	0	454,162
Natural Gas Plant Liquids and LRGs	35,191	3,535	2,145	3,352	0	0	-6,526	9,501	926	27,270	75,547
Liquefied Petroleum Gases	21,639	3,515	1,167	2,783	0	0	-5,657	5,100	926	17,471	64,296
Ethane	5,800	20	0	187	0	0	0	34	(³)	5,973	3,646
Other Products ³	7,702	0	978	382	0	0	-869	4,367	0	3,826	7,605
Other Liquids	817	0	3,407	2,296	0	0	-1,712	11,134	0	-6,326	66,670
Other Hydrocarbons and Alcohol	817	0	0	9	0	0	0	826	0	0	108
Unfinished Oils	0	0	2,893	681	0	0	-963	6,423	0	-3,812	48,909
Motor Gasoline Blending Components	0	0	514	1,622	0	0	-749	3,951	0	-2,594	17,444
Aviation Gasoline Blending Components	0	0	0	-16	0	0	0	-96	0	80	209
Finished Petroleum Products	207	189,022	2,882	3,491	0	1	-107,171	0	7,228	81,205	135,247
Finished Motor Gasoline	0	96,867	(³)	2,688	0	0	-59,701	0	280	29,574	48,046
Finished Leaded Motor Gasoline	0	40,775	(³)	209	0	0	-27,727	0	280	12,977	24,474
Finished Unleaded Motor Gasoline	0	46,091	0	2,479	0	0	-31,974	0	0	16,596	23,572
Gasohol	0	1	0	0	0	0	0	0	0	1	0
Finished Aviation Gasoline	55	329	0	-19	0	0	-288	0	0	77	716
Naphtha-Type Jet Fuel	0	2,521	0	488	0	0	-868	0	0	2,141	2,546
Kerosene-Type Jet Fuel	0	13,365	0	654	0	0	-12,778	0	245	995	11,182
Kerosene	2	3,058	0	-55	0	0	-1,369	0	0	1,637	2,629
Distillate Fuel Oil	1	40,791	330	180	0	1	-26,692	0	304	14,286	36,858
Residual Fuel Oil	0	13,484	1,666	-558	0	0	-2,851	0	2,127	9,614	16,141
Naphtha and Other Oils for Petro. Feed	0	8,596	350	-115	0	0	-96	0	509	8,235	3,037
Special Naphthas	60	935	433	80	0	0	-309	0	35	1,166	1,754
Lubricants	0	2,408	28	-2	0	0	-832	0	219	1,383	6,149
Waxes	0	238	18	-12	0	0	-13	0	8	224	456
Petroleum Coke	0	4,771	0	0	0	0	-497	0	3,486	1,285	802
Asphalt	0	2,610	57	8	0	0	0	0	(³)	2,178	3,077
Road Oil	0	0	0	1	0	0	0	0	0	1	1
Still Gas	0	7,326	0	0	0	0	0	0	0	7,326	0
Miscellaneous Products	89	1,723	0	173	0	0	-887	0	15	1,083	1,852
Total	162,467	192,557	65,882	-2,292	-23,881	-13	-99,140	185,277	8,154	102,149	731,625

1 Unaccounted for crude oil is a balancing item.

2 Total equals refinery fuel use and loss.

3 Includes natural gasoline, isopentane, unrefractionated stream, and plant condensate.

(³) Less than 500 barrels.

E Estimated.

Note: Total may not equal sum of components due to independent rounding.

Sources and estimation procedures: See Explanatory Notes on Data Collection and Estimation

Table 9. PAD District IV Supply and Disposition of Crude Oil and Petroleum Products, November 1982
(Thousands of Barrels)

Commodity	Supply					Disposition					
	Field Production	Refinery Production	Imports	Stock Withdrawal (+) or Addition (-)	Unaccounted For Crude Oil ¹	Crude Used Directly and Losses ²	Net Receipts	Refinery Inputs	Exports	Products Supplied	Ending Stocks
Crude Oil (including lease condensate)	E 17,087	0	1,738	-1,092	-4,888	-8	0	12,837	0	0	12,885
Natural Gas Plant Liquids and LRGs	2,278	113	622	-88	0	0	-399	578	0	1,948	1,351
Liquefied Petroleum Gases	893	113	570	-33	0	0	-33	435	0	1,075	1,019
Ethane	9	0	0	(s)	0	0	0	0	0	8	(s)
Other Products ³	1,377	0	52	-55	0	0	-366	143	0	865	332
Other Liquids	39	0	0	-123	0	0	0	-319	0	235	4,619
Other Hydrocarbons and Alcohol	39	0	0	0	0	0	0	39	0	0	0
Unfinished Oils	0	0	0	115	0	0	0	-244	0	359	2,733
Motor Gasoline Blending Components	0	0	0	-238	0	0	0	-114	0	-124	1,866
Aviation Gasoline Blending Components	0	0	0	0	0	0	0	0	0	0	0
Finished Petroleum Products	43	13,280	1	-674	0	8	180	0	2	12,836	12,302
Finished Motor Gasoline	28	7,034	0	-482	0	0	205	0	0	6,784	5,276
Finished Leaded Motor Gasoline	24	4,539	0	-402	0	0	-161	0	0	4,000	3,276
Finished Unleaded Motor Gasoline	3	2,492	0	-80	0	0	366	0	0	2,781	1,999
Gasohol	0	3	0	0	0	0	0	0	0	3	1
Finished Aviation Gasoline	0	20	0	2	0	0	9	0	0	31	55
Naphtha-Type Jet Fuel	0	446	0	-47	0	0	-192	0	0	207	346
Kerosene-Type Jet Fuel	0	531	0	-14	0	0	578	0	0	1,095	623
Kerosene	0	79	0	5	0	0	0	0	0	84	34
Distillate Fuel Oil	0	3,409	(s)	40	0	0	-420	0	0	3,029	3,509
Residual Fuel Oil	0	353	0	32	0	8	0	0	0	393	513
Naphtha and Other Oils for Petro. Feed	0	0	0	0	0	0	0	0	(s)	(s)	0
Special Naphthas	0	2	1	2	0	0	0	0	0	5	8
Lubricants	0	9	0	14	0	0	0	0	(s)	23	69
Waxes	0	21	0	-6	0	0	0	0	0	15	10
Petroleum Coke	0	299	0	-52	0	0	0	0	(s)	247	713
Asphalt	0	577	0	-171	0	0	0	0	1	405	1,144
Road Oil	0	0	0	3	0	0	0	0	0	3	0
Still Gas	0	473	0	0	0	0	0	0	0	473	0
Miscellaneous Products	15	27	0	(s)	0	0	0	0	(s)	43	2
Total	19,447	13,393	2,361	-1,977	-4,888	0	-219	13,096	2	15,020	31,157

1 Unaccounted for crude oil is a balancing item.

2 Total equals refinery fuel use and loss.

3 Includes natural gasoline, isopentane, unrefractionated stream, and plant condensate.

(s) Less than 500 barrels.

E Estimated.

Note: Total may not equal sum of components due to independent rounding.

Sources and estimation procedures: See Explanatory Notes on Data Collection and Estimation.

Table 10. PAD District V Supply and Disposition of Crude Oil and Petroleum Products, November 1982
(Thousands of Barrels)

Commodity	Field Production	Refinery Production	Imports	Supply Stock Withdrawal (+) or Addition (-)	Unaccounted For Crude Oil ¹	Crude Used Directly and Losses ²	Net Receipts	Disposition			Ending Stocks
								Refinery Inputs	Exports	Products Supplied	
Crude Oil (including lease condensate)	E 83,421	0	5,781	5,807	-6,928	-1,529	-19,902	59,998	6,652	0	82,475
Natural Gas Plant Liquids and LRGs											
Liquefied Petroleum Gases	913	939	627	63	0	0	0	1,329	141	1,071	2,061
Ethane	573	929	627	58	0	0	0	1,102	141	944	2,005
Other Products ³	340	0	0	4	0	0	0	227	0	10	0
Other Liquids											
Other Hydrocarbons and Alcohol	493	0	236	515	0	0	0	2,668	0	117	56
Unfinished Oils	493	0	0	5	0	0	0	498	0	-1,424	33,472
Motor Gasoline Blending Components	0	0	0	354	0	0	0	1,882	0	0	0
Aviation Gasoline Blending Components	0	0	236	156	0	0	0	286	0	-1,528	25,211
Finished Petroleum Products											
Finished Motor Gasoline	0	66,407	1,763	-410	0	1,504	3,701	0	6,566	66,399	52,247
Finished Leaded Motor Gasoline	0	28,753	1,215	209	0	0	1,834	0	12	31,999	18,990
Finished Unleaded Motor Gasoline	0	12,963	953	-129	0	0	1,240	0	12	15,016	9,386
Gasohol	0	15,726	262	340	0	0	594	0	0	16,922	9,598
Finished Aviation Gasoline	0	64	0	-2	0	0	0	0	0	62	6
Naphtha-Type Jet Fuel	0	209	0	-41	0	0	0	0	0	168	666
Kerosene-Type Jet Fuel	0	1,652	0	-210	0	0	328	0	0	1,445	1,445
Kerosene	0	6,367	0	-109	0	0	228	0	0	6,463	5,554
Distillate Fuel Oil	0	109	(s)	76	0	0	0	0	23	1,770	1,770
Residual Fuel Oil	0	10,698	169	-1,641	0	233	674	0	410	9,722	185
Naphtha and Other Oils for Petro. Feed	0	9,088	337	1,186	0	1,271	475	0	3,346	9,010	123
Special Naphthas	0	990	22	-17	0	0	-10	0	1	984	8,412
Lubricants	0	43	15	88	0	0	182	0	1	698	196
Waxes	0	647	1	283	0	0	0	0	56	1,056	1,191
Petroleum Coke	0	49	5	10	0	0	0	0	5	59	45
Asphalt	0	3,443	0	-306	0	0	0	0	2,705	432	1,971
Road Oil	0	954	0	80	0	0	0	0	2	1,032	1,331
Still Gas	0	21	0	-6	0	0	0	0	0	15	33
Miscellaneous Products	0	3,275	0	0	0	0	0	0	0	3,275	0
Total	84,827	67,346	8,407	5,975	-6,928	-25	-16,201	63,995	13,360	66,046	170,255

¹ Unaccounted for crude oil is a balancing item

² Total equals refinery fuel use and loss.

³ Includes natural gasoline, isopentane, unfractionated stream, and plant condensate

(s) Less than 500 barrels

E Estimated

Note: Total may not equal sum of components due to independent rounding.

Sources and estimation procedures: See Explanatory Notes on Data Collection and Estimation.

Table 11. Production of Crude Oil (Including Lease Condensate) by PAD District and State, for the Most Current Month, September 1982
(Thousands of Barrels)

PAD District and State	Production	
	Total	Daily Average
PAD District I		
Florida	2,008	67
New York	E 69	2
Pennsylvania	E 306	10
Virginia	0	0
West Virginia	E 285	10
Total	E 2,668	89
PAD District II		
Illinois	2,445	82
Indiana	E 388	13
Kansas	5,985	200
Kentucky	E 538	18
Michigan	2,663	89
Missouri	E 19	1
Nebraska	556	19
North Dakota	4,069	136
Ohio	E 1,114	37
Oklahoma	13,692	456
South Dakota	95	3
Tennessee	110	4
Total	E 31,674	1,056
PAD District III		
Alabama	1,549	52
Arkansas	E 1,549	52
Louisiana		
Gulf Coast	34,749	1,158
Rest Of State	2,951	98
Total Louisiana	37,700	1,257
Mississippi	2,675	89
New Mexico		
Northwestern	482	16
Southeastern	5,334	178
Total New Mexico	5,816	194
Texas		
TRRC District 01	2,119	71
TRRC District 02	3,167	106
TRRC District 03	10,586	353
TRRC District 04	2,280	76
TRRC District 05	650	22
TRRC District 06, excluding East Texas	3,446	115
TRRC District 07B	2,716	91
TRRC District 07C	2,753	92
TRRC District 08	19,856	662
TRRC District 08A	19,360	645
TRRC District 09	3,126	104
TRRC District 10	1,707	57
East Texas	4,315	144
Total Texas	76,081	2,536
Total	E 125,370	4,179

PAD District and State	Production	
	Total	Daily Average
PAD District IV		
Colorado	2,426	81
Montana	2,541	85
Utah	E 1,949	65
Wyoming	E 9,863	329
Total	E 16,779	559
PAD District V		
Alaska		
South Alaska	2,273	76
North Slope	48,876	1,629
Total Alaska	51,149	1,705
Arizona	28	1
California		
Central Coastal	6,366	212
East Central	20,437	681
North	16	1
South	6,652	222
Total California	33,471	1,116
Nevada	45	2
Total	84,693	2,823
United States Total	E 261,184	8,706

1 Includes offshore production
Sources: See Explanatory Notes on Data Collection and Estimation
E Estimated.

Table 12. Offshore Production of Crude Oil (including Lease Condensate) By State, for the Most Current Month,¹ September 1982 (Thousands of Barrels)

State	Offshore Production	
	Total	Daily Average
Alaska ²		
California	2,023	67
Federal		
State	2,423	81
California, Total	3,281	109
Louisiana	5,704	190
Federal		
State	22,437	748
Louisiana, Total	1,977	66
Texas	24,414	814
Federal		
State	1,457	49
Texas, Total	139	5
	1,596	53
United States Total	33,737	1,125

¹ These production data are included in Table 11.

² All offshore production within State boundaries

Note: Total may not equal sum of components due to independent rounding.

Sources: See Explanatory Notes on Data Collection and Estimation.

Table 13. Production of Lease Condensate by State, for the Most Current Month,¹ September 1982 (Thousands of Barrels)

State	Lease Condensate Production	
	Total	Daily Average
Alabama	903	30
California	10	(s)
Louisiana	5,300	177
Mississippi	154	5
New Mexico	294	10
Oklahoma	961	32
Texas	3,407	114
Total	11,029	368

¹ These production data are included in Table 11. Small amounts of lease condensate are known to be produced in states other than those listed, however, statistics on this production are not available

(s) Less than 500 barrels.

Note: Total may not equal sum of components due to independent rounding.

Sources: See Explanatory Notes on Data Collection and Estimation.

Table 14. Natural Gas Processing Plant Production of Petroleum Products by PAD District,¹ November 1982
(Thousands of Barrels)

Commodity	PAD District I			PAD District II					PAD District III					PAD District IV		United States	
	East Coast	Appalachian #1	Total	Appalachian #2	Ind., Ill., Ky.	Minn., Wisc., Dak.	Kans., Mo.	Okl., Mo.	Total	Texas Inland	Texas Gulf Coast	La., Gulf Coast	No. La., Ark.	New Mexico	Total		Rocky Mt.	West Coast
Natural Gas Plant Liquids	560	367	928	(s)	1,881	449	7,070	9,401	19,523	2,758	8,050	828	4,031	35,191	2,278	913	48,710
Isopentane	0	0	0	0	0	0	371	371	422	87	48	0	0	558	2	0	931
Natural Gasoline	88	32	121	0	49	93	991	1,133	1,748	224	1,255	135	245	3,607	380	358	5,600
Unfractionated Stream	29	35	64	(s)	925	89	-3,783	-2,769	9,704	-10,495	626	183	2,714	2,732	928	-19	936
Plant Condensate	0	0	0	0	41	0	26	67	236	613	22	-66	1	806	66	0	940
Liquefied Petroleum Gases and Ethane	443	300	743	0	867	268	9,465	10,599	7,414	12,328	6,099	577	1,070	27,488	901	573	40,305
Ethane	144	155	299	0	382	0	2,214	2,596	918	2,675	2,072	50	84	5,800	9	0	8,703
Propane	176	98	274	0	351	166	3,168	3,684	2,695	3,343	2,020	174	530	8,761	560	336	13,616
Butane	99	31	130	0	54	89	1,288	1,430	1,170	1,875	773	199	212	4,229	324	184	6,298
Butane-Propane Mixtures	0	0	0	0	0	0	0	0	65	22	(s)	11	0	98	0	34	132
Ethane-Propane Mixtures	0	0	0	0	45	0	2,251	2,296	1,956	3,351	599	0	171	6,078	0	0	8,373
Isobutane	23	16	39	0	36	13	544	593	609	1,062	635	144	73	2,523	8	19	3,183
Finished Motor Gasoline	44	0	44	0	0	0	0	0	0	0	0	0	0	0	28	0	71
Finished Leaded Motor Gasoline	44	0	44	0	0	0	0	0	0	0	0	0	0	0	24	0	68
Gasohol	0	0	0	0	0	0	0	0	0	0	0	0	0	0	3	0	3
Finished Aviation Gasoline	0	0	0	0	0	0	0	0	55	0	0	0	0	55	0	0	55
Naphtha-Type Jet Fuel	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Kerosene-Type Jet Fuel	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Kerosene	0	0	0	0	0	0	0	0	(s)	0	0	0	0	2	2	0	2
Distillate Fuel Oil	0	0	0	0	0	0	1	1	1	0	0	0	0	0	1	0	2
Special Naphthas	0	0	0	0	0	0	0	0	60	0	0	0	0	0	60	0	60
Miscellaneous Products	0	0	0	0	1	0	10	12	71	3	2	11	2	89	15	0	116
Total Production	604	367	971	(s)	1,883	449	7,082	9,414	19,711	2,761	8,052	839	4,035	35,398	2,321	913	49,017

¹ Production represents quantity of natural gas processing plant output less input to fractionating facilities.

(s) Less than 500 barrels.

Note: Total may not equal sum of components due to independent rounding.

Source: See Explanatory Notes on Data Collection and Estimation.

Table 15. Refinery Input of Crude Oil and Petroleum Products by PAD District, November 1982
(Thousands of Barrels, Except Where Noted)

Commodity	PAD District I			PAD District II					PAD District III				PAD District IV		United States		
	East Coast	Appalachian #1	Total	Appalachian #2	Ind., Ill., Ky.	Minn., Wisc., Dak.	Okla., Kans., Mo.	Total	Texas Inland	Texas Gulf Coast	La. Gulf Coast	No. La., Ark.	New Mexico	Total		Rocky Mt.	Dist. V West Coast
Crude Oil (including lease condensate)	33,606	1,829	35,435	1,673	48,341	7,930	21,376	79,320	13,173	84,196	60,161	4,808	2,304	164,642	12,837	59,998	352,232
Natural Gas Plant Liquids																	
Unfractionated Stream	15	0	15	0	275	252	722	1,249	808	2,150	393	109	84	3,544	76	227	5,111
Plant Condensate	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
LPG and Ethane	189	16	205	145	2,431	487	1,154	4,217	774	1,979	2,168	140	73	5,134	435	1,102	11,093
Ethane	0	0	0	0	0	0	0	0	0	0	34	0	0	34	0	0	0
Propane	0	0	0	0	61	25	0	86	0	0	0	45	0	0	0	0	134
Normal Butane	85	0	85	79	1,046	337	715	2,177	287	1,636	1,112	42	11	3,088	119	349	5,818
Other Butanes	0	0	0	0	373	83	54	510	149	56	117	0	0	322	252	490	1,574
Butane-Propane Mixtures	0	0	0	0	196	0	0	196	0	77	49	0	40	166	6	0	368
Ethane-Propane Mixtures	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Isobutane	104	16	120	66	755	42	385	1,248	338	210	811	98	22	1,479	55	263	3,165
Other Liquids																	
Other Hydrocarbons	102	0	102	0	110	0	0	110	16	587	223	0	0	826	39	497	1,574
Alcohol	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	1
Unfinished Oil (net)	3,113	180	3,293	52	245	38	351	686	787	2,507	2,915	69	145	6,423	-244	1,882	12,040
Motor Gasoline Blending																	
Components (net)	-1,092	-44	-1,136	-8	1,802	3	213	2,010	327	1,626	2,137	-68	-41	3,981	-114	286	5,027
Aviation Gasoline Blending																	
Components (net)	4	0	4	0	43	0	-5	38	-75	-4	-17	0	0	-96	0	2	-52
Total Input to Refineries	35,937	1,981	37,918	1,862	53,354	8,710	23,822	87,748	15,855	93,587	67,990	5,279	2,566	185,277	13,096	63,995	388,034
Crude Oil Distillation																	
Gross Input (daily average)	1,145	63	1,208	62	1,650	285	719	2,717	485	2,937	2,059	169	86	5,735	433	2,064	12,157
Operable Capacity (daily average)	1,644	98	1,743	66	2,362	295	885	3,608	622	4,301	2,756	267	107	8,052	589	3,100	17,092
Operating Ratio (percent) ¹	69.6	64.0	69.3	94.4	69.9	96.6	81.3	75.3	78.0	68.3	74.7	63.4	80.1	71.2	73.6	66.6	71.1
Crude Oil Qualities																	
Sulfur Content, Weighted Average (percent)	1.04	.19	.99	.75	.91	1.65	.54	.88	.93	.97	.80	1.36	.36	.91	.90	1.04	93
API Gravity, Weighted Average	30.91	41.76	31.51	36.90	35.10	30.86	37.22	35.29	38.36	34.38	33.46	33.83	39.08	34.41	35.86	25.79	32.89
1 Represents gross input divided by operable capacity																	

¹ Represents gross input divided by operable capacity

Note: Total may not equal sum of components due to independent rounding.

Source: See Explanatory Notes on Data Collection and Estimation

Table 16. Refinery Production of Petroleum Products by PAD District, November 1982
(Thousands of Barrels)

Commodity	PAD District I			PAD District II					PAD District III				PAD District IV		United States	
	East Coast	Appalachian #1	Total	Appalachian #2	Ind., Ill., Ky.	Minn., Wisc., Dak.	Okl., Kans., Mo.	Total	Texas Inland	Texas Gulf Coast	La. Gulf Coast	No La., Ark.	New Mexico	Total	Rocky Mts.	Dist. V West Coast
Liquefied Petroleum Gases and Ethane	1,165	0	1,165	35	1,312	238	437	2,022	251	1,866	1,255	66	97	3,535	113	939
For Petrochemical Feedstock Use	261	0	261	0	141	0	46	187	0	796	236	8	36	1,076	-9	159
For Other Uses	904	0	904	35	1,171	238	391	1,835	251	1,070	1,019	58	61	2,459	122	780
Ethane	0	0	0	0	17	0	0	17	0	10	10	0	0	20	0	10
For Petrochemical Feedstock Use	0	0	0	0	0	0	0	0	0	10	10	0	0	20	0	20
For Other Uses	0	0	0	0	17	0	0	17	0	0	0	0	0	0	0	0
Propane	1,056	0	1,056	35	1,352	238	527	2,152	231	1,817	1,438	50	47	3,583	162	918
For Petrochemical Feedstock Use	236	0	236	0	141	0	46	187	0	573	168	0	0	741	0	154
For Other Uses	820	0	820	35	1,211	238	481	1,965	231	1,244	1,270	50	47	2,842	162	764
Butane	109	0	109	0	-57	0	-90	-147	20	-14	-190	14	43	-127	-52	45
For Petrochemical Feedstock Use	25	0	25	0	0	0	0	0	0	233	43	8	36	320	0	5
For Other Uses	84	0	84	0	-57	0	-90	-147	20	-247	-233	6	7	-447	-52	40
Butane-Propane Mixtures	0	0	0	0	0	0	0	0	0	73	-3	2	7	79	12	-34
For Petrochemical Feedstock Use	0	0	0	0	0	0	0	0	0	0	15	0	0	15	0	15
For Other Uses	0	0	0	0	0	0	0	0	0	73	-18	2	7	64	12	-34
Isobutane for Petro. Feed. Use	0	0	0	0	0	0	0	0	0	-20	0	0	0	-20	-9	0
Finished Motor Gasoline	16,031	560	16,591	1,034	30,154	4,582	13,113	48,883	8,694	42,439	32,902	1,795	1,037	86,867	7,034	28,753
Finished Leaded Motor Gasoline	6,830	290	7,120	490	13,782	2,884	8,502	25,458	4,929	17,593	16,485	1,193	595	40,775	4,539	12,963
Finished Unleaded Motor Gasoline	9,201	270	9,471	544	16,372	1,898	4,806	23,405	3,764	24,846	16,437	602	442	46,091	2,492	15,726
Gasohol	0	0	0	0	15	0	5	20	1	0	0	0	0	1	3	64
Finished Aviation Gasoline	12	0	12	0	90	0	10	100	7	183	139	0	0	329	20	209
Naphtha-Type Jet Fuel	402	50	452	62	403	103	354	922	766	905	339	190	321	2,521	446	1,652
Kerosene-Type Jet Fuel	579	0	579	89	2,978	134	452	3,654	682	5,629	7,016	13	25	13,365	531	6,367
Kerosene	302	30	332	0	623	58	49	730	56	1,576	1,384	2	40	3,058	79	109
Distillate Fuel Oil	9,662	586	10,248	383	11,061	2,415	6,878	20,757	3,518	22,830	12,075	1,496	872	40,791	3,409	10,698
Distillate Fuel Oil Less No. 4	9,662	584	10,246	383	11,048	2,415	6,878	20,724	3,493	22,815	11,747	1,429	832	40,116	3,386	10,617
No. 4 Fuel Oil	0	2	2	0	33	0	0	33	25	15	328	67	240	675	23	81
Residual Fuel Oil	3,935	115	4,050	116	1,801	343	433	2,693	720	6,648	5,796	253	77	13,484	353	9,088
Naphtha < 400 Deg. For Petro. Feed. Use	350	0	350	0	71	0	83	154	312	3,282	234	0	0	3,828	0	235
Other Oils > 400 Deg. For Petro. Feed. Use	9	0	9	0	1,215	0	1	1,216	-159	1,938	2,939	50	0	4,768	0	755
Special Naphthas	-133	21	-112	0	252	0	146	398	112	596	46	181	0	935	2	43
Lubricants	252	370	622	0	449	0	315	764	20	1,577	599	212	0	2,408	9	647
Bright Stock	28	136	164	0	-1	0	42	41	0	157	44	0	0	201	0	52
Neutral	51	217	268	0	364	0	208	572	0	811	455	84	0	1,350	11	390
Other Grades	173	17	190	0	86	0	65	151	20	609	100	128	0	857	-2	205
Wax	19	77	96	0	7	0	35	42	6	110	88	34	0	238	21	49
Microcrystalline	0	14	14	0	0	0	25	25	6	13	0	34	0	53	0	92
Crystalline-Fully Refined	11	14	25	0	7	0	4	11	0	52	88	0	0	140	21	36
Crystalline-Other	8	49	57	0	0	0	6	6	0	45	0	0	0	45	0	13
Petroleum Coke	1,176	11	1,187	27	1,897	324	766	3,014	253	2,527	1,846	134	11	4,771	299	3,443
Marketable	474	0	474	0	1,153	206	486	1,845	66	1,241	1,107	109	0	2,523	154	2,633
Catalyst	702	11	713	27	744	118	280	1,169	187	1,286	739	25	11	2,248	145	810
Asphalt	2,320	1	2,321	118	1,911	585	629	3,243	493	401	926	715	75	2,610	577	954
Road Oil	0	0	0	0	3	0	0	3	0	0	0	0	0	0	0	21
Still Gas	1,578	85	1,663	66	1,904	256	889	3,115	426	4,291	2,993	169	47	7,326	473	3,275
For Petrochemical Feedstock Use	10	0	10	0	1	0	0	1	5	269	80	0	0	354	14	110
For Other Uses	1,568	85	1,653	66	1,903	256	889	3,114	421	4,022	2,313	169	47	6,972	459	3,165
Miscellaneous Products	418	30	448	2	51	24	60	137	108	800	801	14	0	1,723	27	109
Total Output	38,077	1,936	40,013	1,932	56,203	9,062	24,650	91,847	16,265	97,598	70,768	5,324	2,602	192,557	13,393	67,346
Processing Gain(-) or Loss(+)	-2,140	45	-2,095	-70	-2,849	-352	-828	-4,099	-410	-4,011	-2,778	-45	-36	-7,280	-297	-3,351

1 Represents the arithmetic difference between input and output.
Notes: Total may not equal sum of components due to independent rounding.
See Explanatory Notes on negative product yield.
Source: See Explanatory Notes on Data Collection and Estimation

Table 17. Percent Refinery Yield of Petroleum Products by PAD District,¹ November 1982

Commodity	PAD District I			PAD District II					PAD District III					PAD District IV			United States
	East Coast	Appalachian #1	Total	Appalachian #2	Ind., Ill., Ky	Minn., Wisc., Dak.	Okla., Kans., Mo.	Total	Texas Inland	Texas Gulf Coast	La. Gulf Coast	No. La. Ark.	New Mexico	Total	Rocky Mt.	Dist. V West Coast	
Finished Motor Gasoline ²	45.8	29.3	44.9	52.0	52.3	48.2	50.7	51.5	48.2	41.0	44.3	28.6	37.6	42.4	51.9	43.1	45.1
Finished Aviation Gasoline ³	(s)	.0	(s)	.0	.1	.0	.1	.1	.6	.2	.2	.0	0	.2	.2	3	.2
Liquefied Refinery Gases & Ethane	3.2	.0	3.0	2.0	2.7	3.0	2.0	2.5	1.8	2.2	2.0	1.4	4.0	2.1	9	1.5	2.1
Naphtha-Type Jet Fuel	1.1	2.5	1.2	3.6	.8	1.3	1.6	1.2	5.5	1.0	.5	3.9	13.1	1.5	3.5	2.7	1.6
Kerosene-Type Jet Fuel	1.6	0	1.5	5.2	6.1	1.7	2.1	4.6	4.9	6.5	11.1	.3	1.0	7.8	4.2	10.3	6.7
Kerosene .....	.8	1.5	.9	0	1.3	.7	.2	.9	.4	1.8	2.2	(s)	1.6	1.8	6	2	1.2
Distillate Fuel Oil	26.3	29.2	26.5	22.2	22.8	30.3	31.7	25.9	25.2	26.3	19.1	30.7	35.6	23.8	27.1	17.3	23.6
Residual Fuel Oil	10.7	5.7	10.5	6.7	3.7	4.3	2.0	3.4	5.2	7.7	9.2	5.2	3.1	7.9	2.8	14.7	8.1
Naphtha < 400 Deg. F. Petro. Feed Use	1.0	0	.9	0	.1	0	.4	.2	2.2	3.8	4	0	0	2.2	0	.4	1.3
Other Oils > 400 Deg. F. Petro. Feed. Use	(s)	0	(s)	0	2.5	0	(s)	1.5	-1.1	2.2	4.7	1.0	0	2.8	0	1.2	1.9
Special Naphthas	-4	1.0	-3	0	.5	0	.7	.5	.8	.7	.1	3.7	0	.5	(s)	1	.3
Lubricants .....	.7	18.4	1.6	0	.9	0	1.4	1.0	.1	1.8	.9	4.3	0	1.4	1	1.0	1.2
Wax	1	3.8	.2	0	(s)	0	.2	.1	(s)	.1	.1	.7	0	.1	.2	.1	.1
Petroleum Coke	3.2	.5	3.1	1.6	3.9	4.1	3.5	3.8	1.8	2.9	2.9	2.7	.4	2.8	2.4	5.6	3.5
Asphalt	6.3	(s)	6.0	6.8	3.9	7.3	2.9	4.1	3.5	.5	1.5	14.7	3.1	1.5	4.6	1.5	2.7
Road Oil	0	0	0	0	(s)	0	0	(s)	0	0	0	0	0	.0	0	(s)	(s)
Still Gas for Petro. Feed. Use	(s)	0	(s)	0	(s)	0	0	(s)	(s)	.3	1	0	0	2	.1	.2	.1
Still Gas for Other Uses	4.3	4.2	4.3	3.8	3.9	3.2	4.1	3.9	3.0	4.6	3.7	3.5	1.9	4.1	3.6	5.1	4.2
Miscellaneous Products	1.1	1.5	1.2	1	1	3	3	.2	.8	.9	1.3	.3	0	1.0	.2	.2	.7
Processing Gain(-) or Loss(+) ⁴	-5.8	2.2	-5.4	-4.1	-5.9	-4.4	-3.8	-5.1	-2.9	-4.6	-4.4	-9	-1.5	-4.3	-2.4	-5.4	-4.7

¹ Based on crude oil input and net reruns of unfinished oils.² Based on total finished motor gasoline output plus net output of motor gasoline blending components, minus input of natural gas plant liquids, other hydrocarbons and alcohol.³ Based on finished aviation gasoline output plus net output of aviation gasoline blending components⁴ Represents the arithmetic difference between input and production.

(s) Less than 0.05 percent.

Note: Total may not equal sum of components due to independent rounding.

See Explanatory Notes on negative product yields.

Source: See Explanatory Notes on Data Collection and Estimation.

Table 18. Refinery Receipts of Crude Oil by PAD District, November 1982
(Thousands of Barrels)

Method	PAD District I			PAD District II					PAD District III				PAD District IV		United States		
	East Coast	Appalachian #1	Total	Appalachian #2	Ind., Ky.	Minn., Wisc., Dak.	Okla., Kans., Mo.	Total	Texas Inland	Texas Gulf Coast	La. Gulf Coast	No. La., Ark.	New Mexico	Total		Rocky Mt.	Dist. V West Coast
Pipeline																	
Domestic	0	1,234	1,234	1,583	32,244	4,172	19,561	57,560	11,499	49,513	30,321	3,276	2,020	96,629	10,198	28,883	194,504
Foreign	0	0	0	181	13,638	3,675	1,428	18,922	737	7,517	4,299	175	0	12,728	1,801	773	34,224
Tanker																	
Domestic	3,042	0	3,042	0	0	0	0	0	0	5,551	4,832	0	0	10,383	0	23,013	36,438
Foreign	26,541	0	26,541	0	742	0	0	742	0	16,907	17,335	0	0	34,242	0	8,292	69,817
Barge																	
Domestic	0	37	37	0	969	0	0	969	0	5,285	4,059	32	0	9,376	0	268	10,650
Foreign	4,281	0	4,281	0	886	0	0	886	0	0	55	786	0	841	0	0	6,008
Tank Cars																	
Domestic	68	349	417	0	0	0	0	0	0	0	0	19	0	19	0	0	436
Foreign	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Trucks																	
Domestic	0	361	361	0	269	38	858	1,165	661	189	441	968	305	2,564	847	1,378	6,315
Foreign	0	0	0	0	0	0	0	0	171	0	0	0	0	171	0	0	171
Total																	
Domestic	3,110	1,981	5,091	1,583	33,482	4,210	20,419	59,694	12,160	60,538	39,653	4,295	2,325	118,971	11,045	53,542	248,343
Foreign	30,822	0	30,822	181	15,266	3,675	1,428	20,550	908	24,424	21,689	961	0	47,982	1,801	9,065	110,220

Note: Total may not equal sum of components due to independent rounding
Source: See Explanatory Notes on Data Collection and Estimation.

Table 19. Fuels Consumed at Refineries by PAD District, November 1982
(Thousands of Barrels, Except Where Noted)

Commodity	PAD District I			PAD District II					PAD District III				PAD District IV		United States		
	East Coast	Appalachian #1	Total	Appalachian #2	Ind., Ill., Ky.	Minn., Wisc., Dak.	Okla., Kans., Mo.	Total	Texas Inland	Texas Gulf Coast	La. Gulf Coast	No. La., Ark.	New Mexico	Total		Rocky Mtn.	Dist. V West Coast
Crude Oil (including lease condensate)	0	0	0	0	0	0	0	0	0	0	0	6	0	0	6	0	6
Liquefied Petroleum Gases¹	12	2	14	(s)	40	15	48	104	1	4	317	0	5	326	7	173	624
Unfinished Oils	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Distillate Fuel Oil	664	13	676	0	3	0	(s)	3	7	0	0	2	0	9	0	20	708
Residual Fuel Oil	629	52	680	20	319	84	3	426	5	174	86	19	0	285	274	315	1,980
Marketable Petroleum Coke	0	0	0	0	0	0	0	0	0	(s)	0	0	0	(s)	13	45	58
Catalyst Petroleum Coke	702	11	713	27	707	68	221	1,024	186	1,231	740	25	11	2,192	145	809	4,883
Still Gas	1,378	85	1,463	66	1,821	256	814	2,958	377	3,740	2,069	161	48	6,395	432	3,056	14,303
Other Fuels 2	5	0	5	0	79	0	0	79	0	11	0	0	0	11	2	64	162
Natural Gas (million cubic feet)	1,761	201	1,962	53	4,340	124	3,318	7,835	2,478	21,475	8,778	862	146	33,739	1,111	7,117	51,764
Coal (thousand short tons)	0	13	13	0	0	0	0	0	0	0	0	0	0	0	0	0	13
Purchased Electricity (million kWh)	234	28	262	13	367	46	571	997	77	372	365	22	21	878	123	820	3,080
Purchased Steam (million pounds)	611	6	617	0	96	0	0	96	0	0	597	0	0	597	0	817	2,127

¹ Includes liquefied refinery gases.
² Includes small quantities of other petroleum products (e.g., unfinished oils, kerosene, etc.) consumed at refineries.
(s) Less than 500 barrels except where noted.
Note: Total may not equal sum of components due to independent rounding
Source: See Explanatory Notes on Data Collection and Estimation.

Table 20. Imports of Crude Oil and Petroleum Products by PAD District, November 1982
(Thousands of Barrels)

Commodity	Petroleum Administration for Defense Districts					
	I	II	III	IV	V	Total
Crude Oil (including lease condensate) ^{1 2}	32,039	18,872	57,447	1,738	5,781	115,876
Natural Gas Liquids						
Natural Gasoline and Isopentane	729	5,056	2,145	522	627	9,180
Plant Condensate	0	0	978	0	0	978
Liquefied Petroleum Gases and Ethane	149	0	0	52	0	201
Ethane	580	5,056	1,167	570	627	8,001
Propane	(s)	1,256	0	0	0	1,256
Butane	367	2,259	0	328	120	3,074
Butane-Propane Mixtures	214	933	6	242	507	1,902
Ethane-Propane Mixtures	(s)	0	1,161	0	0	1,161
	0	609	0	0	0	609
Other Liquids ¹						
Unfinished Oils ¹	2,504	583	3,407	0	236	6,730
Motor Gasoline Blending Components	1,763	250	2,893	0	0	4,907
	741	332	514	0	236	1,823
Finished Petroleum Products	34,629	724	2,882	1	1,763	39,999
Finished Motor Gasoline	4,976	2	(s)	0	1,215	6,194
Finished Leaded Motor Gasoline	2,740	0	(s)	0	953	3,694
Finished Unleaded Motor Gasoline	2,236	2	0	0	262	2,500
Finished Aviation Gasoline	(s)	0	0	0	0	(s)
Naphtha-Type Jet Fuel	0	0	0	0	0	0
Kerosene-Type Jet Fuel	861	0	0	0	0	861
Bonded Aircraft Fuel	0	0	0	0	0	0
Other	861	0	0	0	0	861
Kerosene	1,011	0	0	0	0	1,011
Distillate Fuel Oil	3,731	(s)	330	(s)	169	4,229
Bonded ships bunkers	0	0	0	0	0	0
For military offshore use	0	0	0	0	0	0
No. 2 fuel oil	3,731	(s)	330	(s)	169	4,229
No. 4 fuel oil	0	0	0	0	0	0
Residual Fuel Oil	22,780	514	1,666	0	337	25,297
Bonded ships bunkers	0	0	0	0	0	0
For military offshore use	0	0	0	0	0	0
Other	22,780	514	1,666	0	337	25,297
Naphtha < 400 Deg. for Petro Feed. Use	87	99	350	0	22	558
Other Oils > 400 Deg. for Petro. Feed. Use	0	0	0	0	0	0
Special Naphthas	286	92	433	1	15	828
Lubricants	717	6	28	0	1	751
Wax	52	3	18	0	5	78
Asphalt	125	9	57	0	0	192
Miscellaneous Products	1	0	0	0	0	1
Total Imports	69,901	25,235	65,882	2,361	8,407	171,786

¹ Crude oil and unfinished oils are reported by the PAD District in which they are to be processed; all other products are reported by the PAD District of entry.

² Includes crude oil imported for storage in the Strategic Petroleum Reserve.

(s) Less than 500 barrels

Note: Total may not equal sum of components due to independent rounding.

Sources: See Explanatory Notes on Data Collection and Estimation.

Table 21. Imports of Crude Oil and Petroleum Products by Source and PAD District, November 1982
(Thousands of Barrels)

Source	Crude Oil 1	LPG and Ethane	Unrefined Oils	Gasoline Blending Components	Finished Motor Gasoline	Jet Fuel	Kerosene	Distill Fuel Oil	Resid Fuel Oil	Special Naphthas	Other Products 2	Total Products	Total Petroleum	Total (Daily Average)
All PAD Districts														
Arab OPEC														
Algeria	4,693	0	0	0	0	198	0	0	2,505	0	0	2,703	7,396	247
Libya	0	0	0	0	0	0	0	0	378	0	0	378	378	13
Saudi Arabia	13,589	0	0	236	0	0	0	0	0	0	837	1,073	14,662	489
United Arab Emirates	1,414	0	0	0	0	0	0	0	0	0	0	0	1,414	47
Subtotal Arab OPEC	19,695	0	0	236	0	198	0	0	2,883	0	837	4,154	23,850	795
Other OPEC														
Ecuador	699	0	0	0	0	0	0	0	189	0	0	189	888	30
Gabon	2,556	0	0	0	0	0	0	0	0	0	0	0	2,556	85
Indonesia	7,904	470	0	0	80	0	0	1	30	0	0	581	8,485	283
Iran	1,023	0	0	0	0	0	0	0	0	0	0	0	1,023	34
Nigeria	14,205	0	0	0	0	0	0	0	182	1	0	183	14,387	480
Venezuela	6,398	63	532	935	258	0	451	422	6,211	467	445	9,784	16,182	539
Subtotal Other OPEC	32,785	533	532	935	338	0	451	423	6,612	467	445	10,737	43,522	1,451
Other														
Angola	1,305	0	0	0	0	0	0	0	0	0	0	0	1,305	44
Australia	0	0	0	0	0	0	0	0	0	0	0	0	0	(s)
Bahamas	0	0	882	0	0	241	0	231	96	0	0	1,450	1,450	48
Brazil	1,210	0	0	0	243	0	0	0	1,343	0	0	1,586	2,796	93
Brunei	217	0	0	0	0	0	0	0	0	0	0	0	217	7
Canada	7,322	6,651	250	333	28	0	8	421	808	143	451	9,094	16,415	547
Egypt	1,949	0	0	0	0	0	0	0	0	0	0	0	1,949	65
France	0	(s)	0	0	0	0	0	0	0	(s)	0	0	0	(s)
Ghana	0	0	0	0	0	0	0	0	150	0	0	150	150	5
Mexico	25,066	691	0	0	(s)	0	0	21	0	4	9	724	25,791	860
Netherlands	0	0	0	0	733	0	0	688	0	41	0	1,461	1,461	49
Netherlands Antilles	0	0	978	0	231	0	0	0	4,892	0	0	6,102	6,102	203
Norway	1,767	0	0	0	0	0	0	0	0	0	0	0	1,767	59
Oman	432	0	0	0	981	0	0	11	0	0	0	982	1,583	53
People's Republic of China	591	0	0	0	0	0	0	0	481	0	0	481	870	29
Peru	369	0	0	0	1,005	0	0	0	0	0	937	2,421	2,421	81
Puerto Rico	0	0	478	0	0	0	0	0	404	0	16	419	2,710	90
Trinidad and Tobago	2,290	0	0	0	0	0	0	0	0	0	20	478	18,685	623
United Kingdom	18,207	126	0	116	0	0	0	0	215	0	0	10,016	10,016	334
Virgin Islands	0	0	1,178	0	2,043	422	551	2,037	3,785	0	0	0	0	12
Zaire	371	0	0	0	0	0	0	0	0	0	0	0	371	12
Other Western Hemisphere														
Hemisphere	139	0	0	26	0	0	0	319	1,630	75	0	2,051	2,190	73
Other Eastern Hemisphere	2,140	(s)	609	176	591	0	0	80	1,997	97	43	3,593	5,733	191
Subtotal Other	63,396	7,467	4,375	652	5,856	663	560	3,807	15,802	360	1,476	41,018	104,414	3,480
Total Imports	115,876	8,001	4,907	1,823	6,194	861	1,011	4,229	25,297	828	2,759	55,909	171,786	5,726

See footnotes at end of table.

Table 21. Imports of Crude Oil and Petroleum Products by Source and PAD District, November 1982
(Thousands of Barrels)

Source	Crude Oil 1	LPG and Ethane	Unfinished Oils	Gasoline Blending Components	Finished Motor Gasoline	Jet Fuel	Kerosene	Distil. Fuel Oil	Resid. Fuel Oil	Special Naphthas	Other Products 2	Total Products	Total Petroleum	Total (Daily Average)
PAD District I														
Arab OPEC														
Algeria	1,984	0	0	0	0	198	0	0	2,503	0	0	2,702	4,885	156
Libya	0	0	0	0	0	0	0	0	378	0	0	378	378	13
Saudi Arabia	4,284	0	0	0	0	0	0	0	0	0	20	20	4,304	143
Subtotal Arab OPEC	6,268	0	0	0	0	198	0	0	2,881	0	20	3,100	9,367	312
Other OPEC														
Ecuador	348	0	0	0	0	0	0	0	189	0	0	189	538	18
Gabon	1,400	0	0	0	0	0	0	0	0	0	0	0	1,400	47
Indonesia	2,072	0	0	0	0	0	0	0	0	0	0	0	2,072	69
Nigeria	4,730	0	0	0	0	0	0	0	0	0	0	0	4,730	158
Venezuela	2,701	63	532	447	258	0	451	422	5,976	251	97	8,498	11,199	373
Subtotal Other OPEC	11,251	63	532	447	258	0	451	422	6,165	251	97	8,687	19,937	665
Other														
Angola	1,305	0	0	0	0	0	0	0	0	0	0	0	1,305	44
Australia	0	0	0	0	0	0	0	0	0	0	0	0	0	(s)
Bahamas	0	0	0	0	0	241	0	231	96	0	0	568	568	19
Brazil	364	0	0	0	243	0	0	0	1,343	0	0	1,586	1,950	65
Canada	0	392	0	1	26	0	8	354	273	35	282	1,370	1,370	46
France	0	(s)	0	0	0	0	0	0	0	0	(s)	0	0	(s)
Ghana	0	0	0	0	0	0	0	0	150	0	0	150	150	5
Mexico	3,999	0	0	0	0	0	0	0	0	0	0	0	3,999	133
Netherlands	0	0	0	0	733	0	0	688	0	0	0	1,420	1,420	47
Netherlands Antilles	0	0	978	0	231	0	0	0	4,892	0	0	6,102	6,102	203
Norway	500	0	0	0	0	0	0	0	0	0	0	0	500	17
Peru	389	0	0	0	0	0	0	0	481	0	0	481	870	29
Puerto Rico	0	0	253	0	1,005	0	0	0	0	0	712	1,970	1,970	66
Trinidad and Tobago	435	0	0	0	0	0	0	0	0	0	0	0	435	14
United Kingdom	6,594	126	0	116	0	0	0	0	215	0	20	478	7,072	236
Virgin Islands	0	0	0	0	2,043	422	551	2,037	3,785	0	0	8,838	8,838	295
Zaire	371	0	0	0	0	0	0	0	0	0	0	0	371	12
Other Western Hemisphere														
Hemisphere	0	0	0	0	0	0	0	0	1,347	0	0	1,347	1,347	45
Other Eastern Hemisphere	563	(s)	0	176	437	0	0	0	1,151	(s)	0	1,764	2,327	78
Subtotal Other	14,520	517	1,231	294	4,718	663	560	3,309	13,734	35	1,014	26,075	40,596	1,353
Total Imports	32,039	580	1,763	741	4,976	861	1,011	3,731	22,780	286	1,132	37,862	69,901	2,330
PAD District II														
Arab OPEC														
Algeria	604	0	0	0	0	0	0	0	0	0	0	0	604	20
Saudi Arabia	1,342	0	0	0	0	0	0	0	0	0	0	0	1,342	45
United Arab Emirates	350	0	0	0	0	0	0	0	0	0	0	0	350	12
Subtotal Arab OPEC	2,295	0	0	0	0	0	0	0	0	0	0	0	2,295	76

See footnotes at end of table.

Table 21. Imports of Crude Oil and Petroleum Products by Source and PAD District, November 1982
(Thousands of Barrels)
(continued)

Source	Crude Oil 1	LPG and Ethane	Unfin-ished Oils	Gasoline Blending Components	Finished Motor Gasoline	Jet Fuel	Kero-sene	Distil. Fuel Oil	Resid. Fuel Oil	Special Naphthas	Other Prod-ucts 2	Total Prod-ucts	Total Petro-leum	Total (Daily Average)
PAD District II														
Other OPEC														
Iran	498	0	0	0	0	0	0	0	0	0	0	0	498	17
Nigeria	3,180	0	0	0	0	0	0	0	0	0	0	0	3,180	106
Subtotal Other OPEC	3,678	0	0	0	0	0	0	0	0	0	0	0	3,678	123
Other														
Canada	4,809	5,056	250	332	2	0	0	(s)	514	92	116	6,364	11,173	372
Egypt	999	0	0	0	0	0	0	0	0	0	0	0	999	33
France	0	0	0	0	0	0	0	0	0	0	(s)	(s)	(s)	(s)
Mexico	4,531	0	0	0	0	0	0	0	0	0	0	0	4,531	151
United Kingdom	2,118	0	0	0	0	0	0	0	0	0	0	0	2,118	71
Other Eastern Hemisphere	442	0	0	0	0	0	0	0	0	0	(s)	(s)	442	15
Subtotal Other	12,899	5,056	250	332	2	0	0	(s)	514	92	116	6,364	19,263	642
Total Imports	18,872	5,056	250	332	2	0	0	(s)	514	92	116	6,364	25,235	841
PAD District III														
Arab OPEC														
Algeria	2,105	0	0	0	0	0	0	0	2	0	0	2	2,107	70
Saudi Arabia	7,963	0	0	0	0	0	0	0	0	0	817	817	8,780	293
United Arab Emirates	1,065	0	0	0	0	0	0	0	0	0	0	0	1,065	35
Subtotal Arab OPEC	11,133	0	0	0	0	0	0	0	2	0	817	818	11,951	398
Other OPEC														
Ecuador	350	0	0	0	0	0	0	0	0	0	0	0	350	12
Gabon	1,157	0	0	0	0	0	0	0	0	0	0	0	1,157	39
Indonesia	1,043	470	0	0	0	0	0	0	0	0	0	470	1,513	50
Iran	525	0	0	0	0	0	0	0	0	0	0	0	525	18
Nigeria	6,295	0	0	0	0	0	0	0	182	1	0	183	6,478	216
Venezuela	3,697	0	0	488	0	0	0	0	234	216	348	1,286	4,984	166
Subtotal Other OPEC	13,067	470	0	488	0	0	0	0	416	216	348	1,939	15,006	500
Other														
Bahamas	0	0	882	0	0	0	0	0	0	0	0	882	882	29
Brazil	847	0	0	0	0	0	0	0	0	0	0	0	847	28
Canada	0	6	0	0	0	0	0	0	0	0	0	6	6	(s)
Egypt	950	0	0	0	0	0	0	0	0	0	0	0	950	32
France	0	0	0	0	0	0	0	0	0	(s)	0	(s)	(s)	(s)
Mexico	16,536	691	0	0	(s)	0	0	10	0	4	3	708	17,244	575
Netherlands	0	0	0	0	0	0	0	0	0	41	0	41	41	1
Norway	1,267	0	0	0	0	0	0	0	0	0	0	0	1,267	42
Oman	432	0	0	0	0	0	0	0	0	0	0	0	432	14
People's Republic of China	591	0	0	0	0	0	0	0	0	0	0	0	591	20
Puerto Rico	0	0	225	0	0	0	0	0	0	0	226	450	450	15
Trinidad and Tobago	1,856	0	0	0	0	0	0	0	404	0	16	419	2,275	76
United Kingdom	9,495	0	0	0	0	0	0	0	0	0	0	0	9,495	317
Virgin Islands	0	0	1,178	0	0	0	0	0	0	0	0	1,178	1,178	39

See footnotes at end of table.

Table 21. Imports of Crude Oil and Petroleum Products by Source and PAD District, November 1982
(continued)

Source	Crude Oil 1	LPG and Ethane	Unfinished Oils	Gasoline Blending Components	Finished Motor Gasoline	Jet Fuel	Kerosene	Distil Fuel Oil	Resid Fuel Oil	Special Naphthas	Other Products 2	Total Products	Total Petroleum	Total (Daily Average)
PAD District III														
Other														
Other Western Hemisphere	139	0	0	26	0	0	0	319	283	75	0	704	843	28
Other Eastern Hemisphere	1,135	0	609	0	0	0	0	0	561	97	21	1,288	2,423	81
Subtotal Other ..	33,247	697	2,893	26	(s)	0	0	330	1,248	217	266	5,677	38,924	1,297
Total Imports	57,447	1,167	2,893	514	(s)	0	0	330	1,666	433	1,431	8,435	65,882	2,196
PAD District IV														
Other														
Canada	1,738	570	0	0	0	0	0	(s)	0	1	52	623	2,361	79
Subtotal Other	1,738	570	0	0	0	0	0	(s)	0	1	52	623	2,361	79
Total Imports	1,738	570	0	0	0	0	0	(s)	0	1	52	623	2,361	79
PAD District V														
Arab OPEC														
Saudi Arabia	0	0	0	236	0	0	0	0	0	0	0	236	236	8
Subtotal Arab OPEC ..	0	0	0	236	0	0	0	0	0	0	0	236	236	8
Other OPEC														
Indonesia	4,789	0	0	0	80	0	0	1	30	0	0	111	4,900	163
Subtotal Other OPEC	4,789	0	0	0	80	0	0	1	30	0	0	111	4,900	163
Other														
Brunei	217	0	0	0	0	0	0	0	0	0	0	0	217	7
Canada	775	627	0	0	0	0	(s)	66	21	15	(s)	730	1,505	50
Mexico	0	0	0	0	0	0	0	11	0	0	5	16	16	1
People's Republic of China	0	0	0	0	981	0	0	11	0	0	0	992	992	33
Other Eastern Hemisphere	0	(s)	0	0	154	0	0	80	285	0	22	541	541	18
Subtotal Other	992	627	0	0	1,135	0	(s)	168	306	15	27	2,279	3,271	109
Total Imports	5,781	627	0	236	1,215	0	(s)	169	337	15	27	2,626	8,407	280

1 Includes crude oil imported for storage in the Strategic Petroleum Reserve

2 Includes aviation gasoline, waxes, asphalt, lubricants, natural gasoline, isopentane, plant condensate, naphthas less than 400 degrees F, other oils greater than 400 degrees F and miscellaneous products.

(s) Less than 500 barrels or less than 500 barrels per day.

Note: Total may not equal sum of components due to independent rounding

Sources: See Explanatory Notes on Data Collection and Estimation

Table 22. Exports of Crude Oil and Petroleum Products by PAD District, November 1982
(Thousands of Barrels)

Commodity	Petroleum Administration for Defense Districts					
	I	II	III	IV	V	Total
Crude Oil (including lease condensate) ¹	0	1,207	0	0	6,552	7,859
Liquefied Petroleum Gases and Ethane	40	8	926	0	141	1,115
Ethane	0	0	(s)	0	0	(s)
Propane	18	3	391	0	57	469
Butane	22	5	535	0	84	646
Butane-Propane Mixtures	0	0	0	0	0	0
Finished Motor Gasoline	(s)	51	280	0	12	343
Naphtha-Type Jet Fuel	(s)	0	0	0	0	(s)
Kerosene-Type Jet Fuel	0	0	245	0	23	269
Kerosene	(s)	(s)	0	0	(s)	1
Distillate Fuel Oil	1	(s)	304	0	410	715
Residual Fuel Oil	1	0	2,127	0	3,346	5,475
Naphtha < 400 Deg. for Petrochem. Feedstock	47	6	16	(s)	1	71
Other Oils > 400 Deg. for Petrochem. Feedstock	0	29	493	0	(s)	522
Special Naphthas	5	1	35	0	1	41
Lubricants	107	12	219	(s)	56	395
Wax	5	(s)	8	0	5	18
Petroleum Coke	3	522	3,486	(s)	2,705	6,716
Asphalt	4	1	(s)	1	2	8
Miscellaneous Products	17	(s)	15	(s)	3	36
Total Product Exports	231	629	8,154	2	6,708	15,723
Total Exports	231	1,836	8,154	2	13,360	23,582

¹ Exports of crude oil are prohibited under normal circumstances. Some crude oil is shipped to Canada in exchange on a barrel-for-barrel basis. Shipments of crude oil to Puerto Rico and the Virgin Islands are not prohibited because these territories are U.S. possessions.

(s) Less than 500 barrels

Note: Total may not equal sum of components due to independent rounding.

Sources: See Explanatory Notes on Data Collection and Estimation

Table 23. Exports of Crude Oil and Petroleum Products by Destination, November 1982
(Thousands of Barrels)

Destination	Crude Oil 1	LPG and Ethane	Finished Motor Gasoline	Jet Fuel	Dist. Fuel Oil	Residual Fuel Oil	Special Naphthas	Lubricants	Wax	Petroleum Coke	Asphalt	Other	Total	Total (Daily Average)
Argentina	0	84	0	0	0	0	0	12	(s)	0	0	(s)	97	3
Australia	0	2	(s)	0	0	0	10	23	(s)	52	0	4	91	3
Bahamas	0	7	(s)	0	(s)	194	(s)	2	0	0	0	(s)	203	7
Belgium & Luxembourg	0	0	0	0	0	0	0	(s)	0	61	0	0	61	2
Brazil	0	1	0	0	0	0	4	16	(s)	1,235	0	1	1,258	42
Cameroon	0	80	0	0	0	0	0	(s)	(s)	19	0	1	100	3
Canada	0	0	0	0	0	0	0	0	0	30	0	0	30	1
Chile	1,207	13	51	0	(s)	323	3	47	2	663	5	51	2,365	79
China (Taiwan)	0	1	0	0	0	0	(s)	17	(s)	(s)	(s)	(s)	19	1
Colombia	0	0	0	0	0	0	4	12	(s)	(s)	0	0	17	1
Costa Rica	0	0	0	0	0	0	2	2	(s)	0	0	4	9	(s)
Denmark	0	10	0	0	0	0	(s)	3	(s)	0	(s)	(s)	13	(s)
Dominican Republic	0	0	0	0	0	0	0	(s)	0	0	0	(s)	2	(s)
Ecuador	0	0	0	0	0	0	(s)	(s)	0	(s)	0	(s)	(s)	(s)
Egypt	0	0	0	0	0	0	0	1	(s)	0	0	2	3	(s)
El Salvador	0	0	0	0	0	0	0	1	(s)	0	0	(s)	2	(s)
Finland	0	0	0	0	0	0	(s)	2	(s)	0	0	(s)	2	(s)
France	0	0	0	0	0	0	0	(s)	(s)	0	0	1	1	(s)
French Pacific Isl.	0	2	0	0	29	13	0	1	(s)	245	0	67	315	10
Ghana	0	0	0	0	0	0	0	(s)	0	0	0	0	42	1
Greece	0	0	0	0	0	0	0	(s)	0	33	0	(s)	33	1
Guatemala	0	(s)	0	0	0	0	0	(s)	0	0	0	0	2	(s)
Guinea	0	(s)	0	0	0	0	0	(s)	3	0	0	(s)	5	(s)
Honduras	0	0	0	0	0	0	0	(s)	0	0	0	0	9	(s)
Hong Kong	0	0	(s)	0	0	0	1	7	(s)	0	0	(s)	7	(s)
India	0	5	0	0	0	0	0	2	(s)	0	0	(s)	9	(s)
Indonesia	0	(s)	0	(s)	0	0	0	16	(s)	0	(s)	(s)	9	(s)
Iran	0	0	0	0	0	0	0	0	0	91	0	7	107	(s)
Israel	0	0	0	0	0	0	0	2	0	0	0	0	0	4
Italy	0	81	0	245	0	0	0	(s)	(s)	(s)	0	5	8	(s)
Ivory Coast	0	0	0	0	0	0	0	4	(s)	499	0	2	828	28
Jamaica	0	10	0	0	0	0	0	2	(s)	0	0	0	4	(s)
Japan	0	0	0	0	178	944	5	2	(s)	0	0	1	13	(s)
Jordan	0	0	0	0	0	0	0	7	(s)	2,115	0	4	3,254	108
Korea, Republic of	0	7	0	0	204	1,198	0	2	0	0	0	2	2	(s)
Kuwait	0	0	0	0	0	0	(s)	2	(s)	(s)	0	0	1,413	47
Lebanon	0	0	0	0	0	0	0	(s)	0	0	(s)	(s)	1	(s)
Liberia	0	0	0	0	0	0	0	(s)	0	0	0	(s)	(s)	(s)
Malaysia	0	0	0	0	0	0	0	(s)	0	0	0	(s)	(s)	(s)
Mexico	557	0	261	0	0	0	0	1	0	0	0	(s)	1	(s)
Netherlands	0	27	0	0	303	394	1	4	1	14	0	2	864	29
Netherlands Antilles	0	0	0	0	0	0	0	19	(s)	569	0	176	1,489	50
New Zealand	0	0	0	0	0	1,223	(s)	1	0	0	0	0	1,224	41
Nicaragua	0	0	0	0	0	0	0	5	0	0	0	4	10	(s)
Nigeria	0	0	0	0	0	0	0	(s)	0	0	0	0	0	(s)
Norway	0	0	0	0	0	0	0	41	0	0	0	2	43	1
Pacific Trust Terr.	0	0	0	0	0	0	0	4	0	28	0	(s)	32	1
Panama	0	0	0	0	0	0	0	(s)	0	0	0	(s)	(s)	(s)
Peru	0	45	0	0	0	0	0	5	(s)	0	0	(s)	51	2
Philippines	0	0	0	0	(s)	0	(s)	23	0	(s)	0	1	24	1
	0	0	0	0	0	0	(s)	3	(s)	0	(s)	1	4	(s)

See footnotes at end of table.

Table 23. Exports of Crude Oil and Petroleum Products by Destination, November 1982
(Thousands of Barrels)

Destination	Crude Oil 1	LPG and Ethane	Finished Motor Gasoline	Jet Fuel	Dist. Fuel Oil	Residual Fuel Oil	Special Naphthas	Lubri-cants	Wax	Petro-leum Coke	Asphalt	Other	Total	Total (Daily Average)
Puerto Rico	2,521	11	0	0	0	333	2	10	1	40	(s)	5	2,923	97
Rep. of South Africa	0	1	0	0	0	0	0	12	4	49	(s)	3	69	2
Saudi Arabia	0	1	0	0	(s)	0	(s)	21	0	0	(s)	3	25	1
Singapore	0	0	0	0	0	851	1	2	(s)	0	(s)	1	856	29
Spain	0	118	0	0	0	0	0	1	(s)	598	0	193	910	30
Surinam	0	0	0	0	0	0	(s)	(s)	0	10	0	(s)	10	(s)
Sweden	0	0	0	0	0	0	0	2	(s)	(s)	0	2	4	(s)
Switzerland	0	2	0	0	0	0	0	1	(s)	0	0	0	3	(s)
Thailand	0	1	30	0	0	0	0	1	(s)	(s)	0	0	33	1
Trinidad and Tobago	0	23	0	0	0	0	0	1	(s)	0	0	(s)	24	1
Turkey	0	0	0	0	0	0	0	1	(s)	0	0	(s)	29	1
United Arab Emirates	0	0	0	0	0	0	0	1	(s)	28	0	(s)	59	2
United Kingdom	0	0	0	0	0	0	(s)	1	0	58	0	(s)	59	2
U.S.S.R.	0	1	0	0	0	0	4	4	(s)	0	0	37	45	2
U.S.S.R.	0	0	0	0	0	0	0	33	0	149	0	9	191	6
Uruguay	0	0	0	0	0	0	0	(s)	0	0	0	(s)	(s)	(s)
Venezuela	0	0	0	0	0	0	2	1	(s)	(s)	0	1	6	(s)
Virgin Islands	3,585	1	0	0	0	0	0	0	0	0	0	0	3,586	120
West Germany	0	1	0	0	0	0	(s)	3	1	84	0	28	116	4
Yugoslavia	0	0	0	0	0	0	0	0	0	45	0	0	45	1
Other	546	19	(s)	0	1	(s)	(s)	7	(s)	0	1	4	578	19
Total	7,859	1,115	343	269	715	5,475	41	395	18	6,716	8	630	23,582	786

1 Exports of crude oil are prohibited under normal circumstances. Some crude oil is shipped to Canada in exchange, on a barrel-for-barrel basis. Shipments of crude oil to Puerto Rico and the Virgin Islands are not prohibited because these territories are U.S. possessions.

(s) Less than 500 barrels or less than 500 barrels per day.

Note: Total may not equal sum of components due to independent rounding.

Sources: See Explanatory Notes on Data Collection and Estimation.

- 24. Stocks of Crude Oil and Petroleum Products by PAD District, November 30, 1982
(Thousands of Barrels)

Commodity	PAD District I				PAD District II						PAD District III				PAD		United States
	East Coast	Appalachian #1	Total	Appalachian #2	Ind., Ill., Ky.	Minn., Wisc., Daks.	Okla., Kans., Mo.	Texas Inland	Texas Gulf Coast	La. Gulf Coast	No La. Ark.	New Mexico	Total	Dist. IV Rocky Mt.	Dist. V West Coast		
Crude Oil (incl. lease condensate)¹																	
Refinery	—	—	15,792	—	—	—	—	—	15,104	—	—	—	—	48,947	1,559	26,400	107,802
Tank Farms and Pipelines	—	—	2,872	—	—	—	—	—	61,055	—	—	—	—	96,474	9,914	30,161	202,476
Leases	—	—	60	—	—	—	—	—	1,585	—	—	—	—	16,778	1,412	1,726	21,561
Strategic Petroleum Reserve ²	—	—	0	—	—	—	—	—	0	—	—	—	—	289,963	0	0	289,963
Alaskan In-Transit	—	—	—	—	—	—	—	—	0	—	—	—	—	0	0	24,188	24,188
Total	—	—	18,724	—	—	—	—	—	77,744	—	—	—	—	454,162	12,885	82,475	645,990
Petroleum Products																	
Refinery	45,259	3,362	48,621	981	42,995	5,487	20,497	10,136	69,960	77,521	48,546	5,684	1,273	143,160	12,477	63,319	337,537
Bulk Terminal	148,694	8,188	156,882	3,912	40,297	8,512	11,175	5,359	63,896	34,720	7,066	4,147	471	51,763	2,795	19,312	294,648
Pipeline	28,527	2,929	31,456	1,423	12,367	3,587	17,240	8,008	34,617	7,576	7,072	14,548	1,018	38,222	2,627	4,201	111,123
Natural Gas Processing Plant	469	686	1,155	0	2,422	151	16,488	5,818	19,061	22,920	10,796	3,889	896	44,318	373	899	65,808
Total	222,949	15,165	238,114	6,316	98,081	17,737	65,400	29,321	187,534	142,737	73,480	28,268	3,658	277,463	18,272	87,731	809,116
Natural Gasoline and Isopentane																	
Refinery	5	0	5	0	24	52	115	54	191	153	135	1	13	356	9	25	586
Pipeline	0	0	0	0	77	15	310	211	402	82	0	60	80	433	182	5	1,022
Natural Gas Processing Plant	5	27	32	0	25	13	1,212	382	1,250	2,414	508	23	33	3,360	51	25	4,718
Total	10	27	37	0	126	80	1,637	647	1,843	2,649	643	84	126	4,149	242	55	6,326
Unfractionated Stream																	
Pipeline	0	0	0	0	78	0	23	101	101	28	28	0	0	56	0	0	157
Natural Gas Processing Plant	0	0	0	0	96	2	2,300	307	2,397	1,302	61	2	156	1,827	31	2	4,257
Total	0	0	0	0	174	2	2,323	307	2,498	1,330	89	2	156	1,883	31	2	4,414
Plant Condensate																	
Refinery	0	0	0	0	6	0	0	10	6	75	0	96	0	181	0	0	187
Pipeline	0	0	0	0	0	0	0	866	0	365	49	8	17	1,305	0	0	1,305
Natural Gas Processing Plant	0	0	0	0	2	0	5	36	7	34	6	10	1	87	59	0	153
Total	0	0	0	0	8	0	5	912	13	474	55	114	18	1,573	59	0	1,645
Ethane																	
Refinery	0	0	0	0	9	0	0	0	9	409	0	0	0	409	0	0	418
Bulk Terminal	0	0	0	0	80	0	40	0	120	0	727	0	0	727	0	0	847
Pipeline	0	0	0	0	42	972	159	177	1,173	78	114	0	3	372	0	0	1,545
Natural Gas Processing Plant	0	0	0	0	24	0	433	361	458	1,363	413	1	0	2,138	(s)	0	2,596
Total	0	0	0	0	155	972	632	538	1,760	2,577	527	1	3	3,646	(s)	0	5,406
Propane for Petrochemical Feedstock Use																	
Refinery	72	0	72	0	72	0	1	0	73	8	399	0	0	407	0	0	552
Total	72	0	72	0	72	0	1	0	73	8	399	0	0	407	0	0	552
Propane for Other Uses																	
Refinery	560	4	564	3	1,070	17	246	77	1,336	766	909	3	4	1,759	173	218	4,050
Bulk Terminal	586	0	586	0	1,086	71	435	167	1,592	11,555	6	43	0	11,771	37	0	13,986
Pipeline	857	1,677	2,534	61	1,106	217	1,900	493	3,284	80	245	885	151	1,854	114	0	7,786
Natural Gas Processing Plant	438	653	1,091	0	2,158	119	9,149	3,068	11,426	5,756	5,787	3,567	289	18,466	165	347	31,496
Total	2,441	2,334	4,775	64	5,420	424	11,730	3,805	17,638	18,157	6,947	4,498	444	33,850	489	565	57,318

See footnotes at end of table.

Table 24. Stocks of Crude Oil and Petroleum Products by PAD District, November 30, 1982
(Thousands of Barrels) (continued)

Commodity	PAD District I			PAD District II					PAD District III					PAD District IV		PAD District V	
	East Coast	Appalachian #1	Total	Appalachian #2	Ill., Ky.	Ind., Minn., Wisc., Daks.	Okla., Kans., Mo.	Total	Texas Inland	Texas Gulf Coast	La. Gulf Coast	No. La., Ark.	New Mexico	Total	Rocky Mt.	Dist. IV	West Coast
Butane for Petro. Feed. Use																	
Refinery	0	0	0	0	0	17	0	17	0	25	0	3	0	28	0	2	47
Total	0	0	0	0	0	17	0	17	0	25	0	3	0	28	0	2	47
Butane for Other Uses																	
Refinery	99	0	99	261	273	49	181	764	121	329	1,109	2	3	1,564	163	622	3,212
Bulk Terminal	262	0	262	0	402	0	71	473	109	3,365	0	0	0	3,474	0	0	4,209
Pipeline	30	126	156	0	922	15	264	1,201	882	95	5	163	75	1,220	130	0	2,707
Natural Gas Processing Plant	17	5	22	0	66	14	849	929	1,004	4,202	2,699	137	91	8,134	42	491	9,617
Total	408	131	539	261	1,663	78	1,365	3,367	2,116	7,991	3,813	302	169	14,392	335	1,113	19,745
Butane-Propane Mixtures for Petro. Feed. Use																	
Refinery	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Total	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Butane-Propane Mixtures for Other Uses																	
Refinery	0	0	0	0	0	0	0	0	1	16	55	0	19	91	4	278	373
Bulk Terminal	0	0	0	0	196	0	20	196	0	1	14	0	0	1	0	0	197
Pipeline	0	0	0	0	0	0	20	614	45	45	14	0	1	674	0	0	694
Natural Gas Processing Plant	0	0	0	0	3	0	83	86	32	7	(S)	2	0	41	0	4	131
Total	0	0	0	0	199	0	103	302	647	69	69	2	20	807	4	282	1,395
Ethane-Propane Mixtures																	
Bulk Terminal	0	0	0	0	0	0	1	1	255	1,552	0	0	0	1,807	0	0	1,808
Pipeline	0	0	0	0	66	0	464	530	510	59	2	0	118	689	125	0	1,344
Natural Gas Processing Plant	0	0	0	0	0	0	1,174	1,174	240	4,833	0	0	256	5,329	0	0	6,502
Total	0	0	0	0	66	0	1,639	1,705	1,005	6,444	2	0	374	7,825	125	0	9,654
Isobutane																	
Refinery	9	9	18	18	88	13	152	271	102	254	557	10	7	930	29	12	1,260
Bulk Terminal	0	0	0	0	72	0	8	80	89	1,888	0	0	0	1,987	0	0	2,067
Pipeline	0	0	0	0	459	0	94	553	177	10	0	50	49	286	36	0	875
Natural Gas Processing Plant	1	2	3	0	45	4	1,281	1,330	154	2,187	1,321	54	68	3,784	1	30	5,148
Total	10	11	21	18	664	17	1,535	2,234	532	4,339	1,878	114	124	6,967	66	42	9,350
Other Hydrocarbons and Alcohol																	
Refinery	0	15	15	0	88	0	0	88	1	70	37	0	0	108	0	0	211
Total	0	15	15	0	88	0	0	88	1	70	37	0	0	108	0	0	211
Unfinished Oils																	
Refinery	3,521	308	3,829	46	2,455	137	1,280	3,918	901	6,200	3,951	184	97	11,333	492	5,848	25,420
Naphthas and Lighter	1,662	9	1,671	0	2,252	10	1,138	3,400	328	7,204	1,140	100	3	8,775	252	3,635	17,733
Kerosene and Lighter Gas Oils	7,079	481	7,560	99	5,837	297	1,850	8,083	817	12,415	5,787	800	148	20,967	1,261	10,222	48,093
Heavy Gas Oils	1,518	257	1,775	2	3,084	43	1,461	4,590	522	3,793	3,492	27	0	7,834	728	5,506	20,433
Residuum	13,780	1,055	14,835	147	13,628	487	5,729	19,991	2,568	29,612	15,370	1,111	248	48,909	2,733	25,211	111,679
Total	35,560	2,110	37,670	294	30,256	1,161	12,608	42,909	5,126	59,448	29,820	2,122	496	100,337	5,233	25,396	139,488

See footnotes at end of table.

Table 24. Stocks of Crude Oil and Petroleum Products by PAD District, November 30, 1982
(Thousands of Barrels) (continued)

Commodity	PAD District I			PAD District II					PAD District III					PAD District IV		United States	
	East Coast	Appalachian #1	Total	Appalachian #2	Ind., Ill., Ky.	Minn., Daks.	Okla., Kans., Mo.	Total	Texas Inland	Texas Gulf Coast	La., Gulf Coast	No. La., Ark.	New Mexico	Total	Rocky Mt.		Dist. V West Coast
Motor Gasoline Blending Components																	
Refinery	4,578	118	4,696	34	5,423	592	1,684	7,733	1,342	8,528	7,182	133	149	17,334	1,886	8,130	39,779
Bulk Terminal	294	0	294	5	133	1	49	188	53	45	0	0	0	98	0	93	673
Pipeline	0	0	0	0	0	2	215	217	12	0	0	0	0	12	0	0	229
Total	4,872	118	4,990	39	5,556	595	1,948	8,138	1,407	8,573	7,182	133	149	17,444	1,886	8,223	40,681
Aviation Gasoline Blending Components																	
Refinery	0	0	0	0	97	0	7	104	36	25	148	0	0	209	0	38	351
Total	0	0	0	0	97	0	7	104	36	25	148	0	0	209	0	38	351
Total Finished Motor Gasoline																	
Refinery	5,271	266	5,537	100	5,637	1,450	4,137	11,324	2,450	8,368	5,216	1,030	170	17,234	2,339	7,098	43,532
Bulk Terminal	36,493	3,597	40,030	1,780	17,422	3,772	5,274	28,248	2,538	5,367	1,815	2,526	292	12,538	1,706	9,533	92,055
Pipeline	14,940	651	15,591	734	6,911	1,200	7,466	16,311	2,403	3,738	4,344	7,601	188	18,274	1,208	2,359	53,743
Natural Gas Processing Plant	8	0	8	0	0	0	0	0	0	0	0	0	0	0	23	0	32
Total Finished Motor Gasoline	56,652	4,514	61,166	2,614	29,970	6,422	16,877	55,883	7,391	17,473	11,375	11,157	650	48,046	5,276	18,990	189,362
Finished Leaded Motor Gasoline																	
Refinery	2,530	145	2,675	56	2,535	900	2,433	5,924	1,349	3,898	2,699	816	79	8,841	1,457	3,045	21,942
Bulk Terminal	17,711	1,616	19,327	876	8,533	2,245	3,456	15,110	1,297	2,759	838	1,285	169	6,348	1,020	5,181	46,986
Pipeline	6,428	342	6,770	348	3,000	736	4,643	8,727	1,556	2,277	1,604	3,736	112	9,285	781	1,160	26,723
Natural Gas Processing Plant	8	0	8	0	0	0	0	0	0	0	0	0	0	0	18	0	27
Total	26,677	2,103	28,780	1,280	14,068	3,881	10,532	29,761	4,202	8,934	5,141	5,837	360	24,474	3,276	9,386	95,678
Finished Unleaded Motor Gasoline																	
Refinery	2,741	121	2,862	44	3,102	550	1,704	5,400	1,101	4,470	2,517	214	91	8,393	881	4,047	21,583
Bulk Terminal	18,715	1,981	20,696	904	8,854	1,527	1,817	13,102	1,241	2,608	977	1,241	123	6,190	686	4,352	45,026
Pipeline	8,512	309	8,821	386	3,911	463	2,823	7,583	847	1,461	2,740	3,865	76	8,989	427	1,199	27,019
Natural Gas Processing Plant	0	0	0	0	0	0	0	0	0	0	0	0	0	0	5	0	5
Total	29,968	2,411	32,379	1,334	15,867	2,540	6,344	26,065	3,189	8,539	6,234	5,320	290	23,572	1,999	9,598	93,633
Gasohol																	
Refinery	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	6	7
Bulk Terminal	7	0	7	0	35	0	1	36	0	0	0	0	0	0	0	0	43
Pipeline	0	0	0	0	0	1	0	1	0	0	0	0	0	0	0	0	1
Total	7	0	7	0	35	1	1	37	0	0	0	0	0	0	1	6	51
Finished Aviation Gasoline																	
Refinery	24	0	24	0	103	0	39	142	22	330	140	0	0	0	492	36	239
Bulk Terminal	433	41	474	17	257	44	65	383	45	22	4	30	58	159	19	427	933
Pipeline	18	0	18	0	11	0	31	42	0	0	0	0	0	0	0	0	60
Natural Gas Processing Plant	0	0	0	0	0	0	0	0	65	0	0	0	0	0	0	0	65
Total	475	41	516	17	371	44	135	567	132	352	144	30	58	716	55	666	2,520
Naphtha-Type Jet Fuel																	
Refinery	129	39	168	0	472	67	273	812	271	729	341	218	157	1,716	251	1,021	3,968
Bulk Terminal	7	10	17	26	174	37	108	345	171	64	0	45	0	280	8	120	770
Pipeline	185	0	185	22	0	58	91	171	171	0	52	92	235	550	87	304	1,297
Total	321	49	370	48	646	162	472	1,328	613	793	393	355	392	2,546	346	1,445	6,035

See footnotes at end of table.

See footnotes at end of table.

Table 24. Stocks of Crude Oil and Petroleum Products by PAD District, November 30, 1982
(Thousands of Barrels) (continued)

Commodity	PAD District I				PAD District II					PAD District III				PAD			United States			
	East Coast	Appalachian #1	Total	Appalachian #2	Ind., Ill., Ky.			Minn., Wisc., Daks.		Okla., Kans., Mo.		Texas Inland	Texas Gulf Coast	La. Gulf Coast	No. La., Ark.	New Mexico		Total	Dist. IV Rocky Mt.	Dist. V West Coast
Kerosene-Type Jet Fuel																				
Refinery	1,316	0	1,316	39	1,301	52	188	1,580	322	2,489	2,483	1	29	5,324	352	3,204	11,776			
Bulk Terminal	5,665	153	5,818	63	2,500	316	542	3,421	199	1,683	81	41	20	2,024	156	1,917	13,336			
Pipeline	2,784	156	2,940	109	515	115	1,335	2,074	781	1,219	489	1,326	19	3,834	115	439	9,396			
Natural Gas Processing Plant	0	0	0	0	0	0	0	0	0	0	0	(s)	0	(s)	0	0	(s)			
Total	9,765	309	10,074	211	4,316	483	2,065	7,075	1,302	5,391	3,053	1,368	68	11,182	623	5,554	34,508			
Kerosene																				
Refinery	375	46	421	0	694	29	195	918	45	1,001	591	19	59	1,715	7	82	3,143			
Bulk Terminal	4,284	313	4,597	271	1,315	71	13	1,670	15	420	44	26	0	505	27	40	6,839			
Pipeline	733	13	746	59	116	0	32	207	17	91	152	146	0	406	0	1	1,360			
Natural Gas Processing Plant	0	0	0	0	0	0	0	0	2	0	0	0	1	3	0	0	3			
Total	5,392	372	5,764	330	2,125	100	240	2,795	79	1,512	787	191	60	2,629	34	123	11,345			
Total Distillate Fuel Oils																				
Refinery	9,985	368	10,353	49	8,030	1,811	4,497	14,387	1,319	9,888	5,885	1,314	256	18,662	2,040	5,532	50,974			
Bulk Terminal	66,177	2,875	69,052	1,344	13,775	3,668	3,751	22,538	1,395	5,619	1,608	1,235	99	9,956	839	4,668	107,053			
Pipeline	8,980	306	9,286	438	2,064	993	4,836	8,331	684	1,678	1,578	4,217	82	8,239	630	1,077	27,563			
Natural Gas Processing Plant	0	0	0	0	0	0	1	1	1	0	0	0	0	1	0	0	2			
Total Distillate Fuel Oil	85,142	3,549	88,691	1,831	23,869	6,472	13,085	45,257	3,399	17,185	9,071	6,766	437	36,858	3,509	11,277	185,592			
Dist. Fuel Oils Less No. 4 Fuel Oil																				
Refinery	9,985	364	10,349	49	8,002	1,811	4,497	14,359	1,275	9,658	5,630	1,242	189	17,994	2,039	5,487	50,228			
Bulk Terminal	64,282	2,872	67,154	1,335	13,747	3,668	3,751	22,501	1,343	5,619	1,607	1,235	99	9,903	839	4,632	105,029			
Pipeline	8,980	306	9,286	438	2,064	993	4,836	8,331	684	1,678	1,578	4,217	82	8,239	630	1,077	27,563			
Natural Gas Processing Plant	0	0	0	0	0	0	1	1	1	0	0	0	0	1	0	0	2			
Total	83,247	3,542	86,789	1,822	23,813	6,472	13,085	45,192	3,303	16,955	8,815	6,694	370	36,137	3,508	11,196	182,822			
No. 4 Fuel Oil																				
Refinery	0	4	4	0	28	0	0	28	44	230	255	72	67	668	1	45	746			
Bulk Terminal	1,895	3	1,898	9	28	0	0	37	52	0	1	0	0	53	0	36	2,024			
Total	1,895	7	1,902	9	56	0	0	65	96	230	256	72	67	721	1	81	2,770			
Residual Fuel Oils																				
Refinery	4,289	122	4,411	110	2,129	295	154	2,688	410	5,511	4,136	281	56	10,394	513	6,654	24,660			
Bulk Terminal	31,357	601	31,958	216	1,294	149	649	2,308	309	2,279	3,133	25	0	5,746	0	1,736	41,748			
Pipeline	0	0	0	0	0	0	0	0	0	1	0	0	0	1	0	22	23			
Total	35,646	723	36,369	326	3,423	444	803	4,996	719	7,791	7,269	306	56	16,141	513	8,412	66,431			
Naphtha < 400 Deg. Petro. Feedstock																				
Refinery	193	0	193	0	57	0	68	125	132	953	276	6	0	1,367	0	315	2,000			
Total	193	0	193	0	57	0	68	125	132	953	276	6	0	1,367	0	315	2,000			
Other Oils > 400 Deg. Petro. Feedstock																				
Refinery	5	0	5	0	135	0	1	136	200	1,166	272	32	0	1,670	0	383	2,194			
Total	5	0	5	0	135	0	1	136	200	1,166	272	32	0	1,670	0	383	2,194			

See footnotes at end of table.

Table 24. Stocks of Crude Oil and Petroleum Products by PAD District, November 30, 1982
(Thousands of Barrels) (continued)

Commodity	PAD District I			PAD District II					PAD District III				PAD		United States		
	East Coast	Appalachian #1	Total	Appalachian #2	Ind., Ill., Ky.	Minn., Wisc., Dak.	Okla., Kans., Mo.	Total	Texas		La. Gulf Coast	No. La., Ark.	New Mexico	Total			
									Inland	Gulf Coast							
Special Naphthas																	
Refinery	48	45	93	0	245	0	190	435	35	1,256	70	121	0	1,482	8	196	2,214
Bulk Terminal	722	25	747	36	184	7	0	227	0	120	0	19	0	139	0	0	1,113
Natural Gas Processing Plant	0	0	0	0	0	0	0	0	133	0	0	0	0	133	0	0	133
Total	770	70	840	36	429	7	190	662	168	1,376	70	140	0	1,754	8	196	3,460
Lubricants																	
Refinery	77	454	531	0	45	0	44	89	0	251	83	0	0	334	2	44	1,000
Bright Stock	525	437	962	0	593	0	447	1,040	0	1,859	1,042	79	0	2,980	57	521	5,560
Neutral	658	147	805	0	157	0	126	283	39	2,042	286	184	0	2,551	7	101	3,747
Other	825	190	1,015	12	432	16	54	514	4	13	197	68	2	284	3	525	2,341
Bulk Terminals	2,085	1,228	3,313	12	1,227	16	671	1,926	43	4,165	1,808	331	2	6,149	69	1,191	12,648
Total																	
Wax, Microcrystalline																	
Refinery	3	37	40	0	0	0	14	14	28	28	10	1	0	67	0	0	121
Total	3	37	40	0	0	0	14	14	28	28	10	1	0	67	0	0	121
Wax, Crystalline-Fully Refined																	
Refinery	10	45	55	0	20	0	27	47	0	83	175	0	0	258	10	34	404
Total	10	45	55	0	20	0	27	47	0	83	175	0	0	258	10	34	404
Wax, Crystalline-Other																	
Refinery	6	74	80	0	0	0	7	7	0	131	0	0	0	131	0	11	229
Total	6	74	80	0	0	0	7	7	0	131	0	0	0	131	0	11	229
Petroleum Coke																	
Refinery	1,174	0	1,174	0	830	63	1,140	2,033	0	146	438	218	0	802	713	1,971	6,693
Total	1,174	0	1,174	0	830	63	1,140	2,033	0	146	438	218	0	802	713	1,971	6,693
Asphalt																	
Refinery	1,735	27	1,762	219	1,678	479	822	3,198	503	580	898	754	103	2,838	1,144	1,191	10,133
Bulk Terminal	1,623	383	2,006	142	961	357	113	1,573	0	0	166	73	0	239	0	140	3,958
Total	3,358	410	3,768	361	2,639	836	935	4,771	503	580	1,064	827	103	3,077	1,144	1,331	14,091
Road Oil																	
Refinery	0	0	0	0	20	0	0	20	0	0	0	1	0	1	0	33	54
Total	0	0	0	0	20	0	0	20	0	0	0	1	0	1	0	33	54
Miscellaneous Products																	
Refinery	333	54	387	1	71	14	13	99	48	440	303	66	0	857	1	202	1,546
Bulk Terminal	26	0	26	0	14	3	2	19	0	0	12	16	0	28	0	113	186
Pipeline	0	0	0	0	0	0	0	0	10	7	0	0	0	17	0	0	17
Natural Gas Processing Plant	0	0	0	0	4	0	(s)	4	32	824	1	93	(s)	950	1	0	955
Total	359	54	413	1	89	17	15	122	90	1,271	316	175	(s)	1,852	2	315	2,704
Total Stocks, All Oils																	
	—	—	256,838	—	—	—	—	265,278	—	—	—	—	—	731,625	31,157	170,255	1,455,155

1 Crude oil data are not collected by refinery district.

2 Includes 33799 thousands of barrels of domestic crude oil.

(s) Less than 500 barrels

Note: Total may not equal sum of components due to independent rounding.

Sources See Explanatory Notes on Data Collection and Estimation

— Not Applicable.

Table 25. Movements of Crude Oil and Petroleum Products by Pipeline, Tanker, and Barge Between PAD Districts, November 1982
(Thousands of Barrels)

Commodity	From I to			From II to			From III to			From IV to			From V to				
	II	III	V	I	III	IV	V	I	II	IV	V	II	III	V	I	II	III
Crude Oil	0	0	0	0	0	0	0	405	1,574	0	0	0	0	0	1,654	0	18,248
Petroleum Products	8,700	528	0	3,504	5,630	2,481	0	94,337	24,933	0	2,426	1,296	81	1,323	0	0	48
Natural Gasoline and Isopentane	0	0	0	0	329	0	0	0	1,212	0	0	352	14	0	0	0	0
Unfractionated Stream	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Plant Condensate	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Liquefied Petroleum Gases	0	23	0	1,018	1,738	148	0	1,886	5,799	0	0	114	67	0	0	0	0
Unfinished Oils	0	351	0	0	0	0	0	1,314	0	0	0	0	0	0	0	0	0
Motor Gasoline Blending Components	0	0	0	0	0	0	0	0	749	0	0	0	0	0	0	0	0
Aviation Gasoline Blending Components	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Finished Motor Gasoline	5,544	0	0	1,527	2,029	1,552	0	49,165	11,592	0	973	486	0	861	0	0	0
Finished Leaded Motor Gasoline	3,049	0	0	619	1,132	876	0	22,641	5,649	0	569	366	0	671	0	0	0
Finished Unleaded Motor Gasoline	2,495	0	0	908	897	676	0	26,524	5,943	0	404	120	0	190	0	0	0
Gasohol	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Finished Aviation Gasoline	10	0	0	0	0	9	0	168	120	0	0	0	0	0	0	0	0
Naphtha-Type Jet Fuel	172	0	0	0	68	0	0	715	0	0	221	85	0	107	0	0	0
Kerosene-Type Jet Fuel	233	0	0	126	52	633	0	10,549	2,104	0	177	4	0	51	0	0	0
Kerosene	87	0	0	0	0	0	0	1,310	59	0	0	0	0	0	0	0	0
Distillate Fuel Oil	2,479	0	0	366	891	139	0	24,902	2,311	0	370	255	0	304	0	0	0
Distillate Fuel Oil Less No. 4	2,479	0	0	366	746	139	0	24,559	2,311	0	370	255	0	304	0	0	0
No. 4 Fuel Oil	0	0	0	0	145	0	0	343	0	0	0	0	0	0	0	0	0
Residual Fuel Oil	0	0	0	178	457	0	0	2,681	152	0	475	0	0	0	0	0	0
Naphtha and Other Oils for Petro																	
Feedstock	14	0	0	9	23	0	0	54	65	0	0	0	0	0	0	0	10
Special Naphthas	0	0	0	8	0	0	0	195	114	0	0	0	0	0	0	0	0
Lubricants	141	35	0	18	43	0	0	488	240	0	207	0	0	0	0	0	25
Wax	0	0	0	0	0	0	0	13	0	0	0	0	0	0	0	0	0
Asphalt and Road Oil	0	102	0	182	0	0	0	310	289	0	0	0	0	0	0	0	0
Miscellaneous Products	20	17	0	72	0	0	0	787	127	0	3	0	0	0	0	0	13
Total All Products	8,700	528	0	3,504	5,630	2,481	0	94,742	26,507	0	2,426	1,296	81	1,323	1,654	0	18,296

Note: Total may not equal sum of components due to independent rounding.
Sources: See Explanatory Notes on Data Collection and Estimation.

Table 26. Movements of Petroleum Products by Pipeline Between PAD Districts, November 1982
(Thousands of Barrels)

Commodity	From I to	From II to				From III to				From IV to			
	II	I	III	IV	I	II	IV	V	II	III	V		
Natural Gasoline and Isopentane	0	0	329	0	0	1,212	0	0	352	14	0	0	
Unfractionated Stream	0	0	0	0	0	0	0	0	0	0	0	0	
Plant Condensate	0	0	0	0	0	0	0	0	0	0	0	0	
Liquefied Petroleum Gases	0	1,018	1,738	148	1,463	5,799	0	0	114	67	0	0	
Motor Gasoline Blending Components	0	0	0	0	0	749	0	0	0	0	0	0	
Aviation Gasoline Blending Components	0	0	0	0	0	0	0	0	0	0	0	0	
Finished Motor Gasoline	4,268	1,295	2,009	1,552	37,539	10,907	0	973	486	0	861	0	
Finished Leaded Motor Gasoline	2,323	534	1,112	876	17,760	5,312	0	569	366	0	671	0	
Finished Unleaded Motor Gasoline	1,945	761	897	676	19,779	5,585	0	404	120	0	190	0	
Gasohol	0	0	0	0	0	0	0	0	0	0	0	0	
Finished Aviation Gasoline	10	0	0	9	28	87	0	0	0	0	0	0	
Naphtha-Type Jet Fuel	0	0	68	0	256	0	0	221	85	0	107	0	
Kerosene-Type Jet Fuel	143	119	52	633	6,840	1,833	0	177	4	0	51	0	
Kerosene	54	0	0	0	836	59	0	0	0	0	0	0	
Distillate Fuel Oil	1,673	327	746	139	19,826	1,804	0	370	255	0	304	0	
Distillate Fuel Oil Less No. 4	1,673	327	746	139	19,826	1,804	0	370	255	0	304	0	
No. 4 Fuel Oil	0	0	0	0	0	0	0	0	0	0	0	0	
Residual Fuel Oil	0	0	0	0	0	0	0	0	0	0	0	0	
Miscellaneous Products	0	72	0	0	0	32	0	0	0	0	0	0	
Total	6,148	2,831	4,942	2,481	66,788	22,482	0	1,741	1,296	81	1,323	0	

Note: Total may not equal sum of components due to independent rounding.

Source: See Explanatory Notes on Data Collection and Estimation

Table 27. Movements of Crude Oil and Petroleum Products by Tanker and Barge Between PAD Districts, November 1982
(Thousands of Barrels)

Commodity	From I to			From II to			From III to				From V to				
	II	III	V	I	III	V	I	New Eng	Cent Atl	Low Atl	II	V	I	II	III
Crude Oil	0	0	0	0	0	0	405	0	405	0	1,574	0	1,654	0	18,248
Petroleum Products	2,552	528	0	673	688	0	27,549	3,350	7,068	17,131	2,451	685	0	0	48
Liquefied Petroleum Gases	0	23	0	0	0	0	223	0	0	223	0	0	0	0	0
Unfinished Oils	0	351	0	0	0	0	1,314	0	1,292	22	0	0	0	0	0
Finished Motor Gasoline	1,276	0	0	232	20	0	11,626	967	542	10,117	685	0	0	0	0
Finished Aviation Gasoline	0	0	0	0	0	0	140	14	42	84	33	0	0	0	0
Naphtha-Type Jet Fuel	172	0	0	0	0	0	459	0	195	264	0	0	0	0	0
Kerosene-Type Jet Fuel	90	0	0	7	0	0	3,709	229	958	2,522	271	0	0	0	0
Kerosene	33	0	0	0	0	0	474	0	243	231	0	0	0	0	0
Distillate Fuel Oil	806	0	0	39	145	0	5,076	1,258	1,491	2,327	507	0	0	0	0
Residual Fuel Oil	0	0	0	178	457	0	2,681	882	1,145	654	152	475	0	0	0
Naphtha and Other Oils for Petro. Feed. Use	14	0	0	9	23	0	54	0	22	32	65	0	0	0	10
Special Naphthas	0	0	0	8	0	0	195	0	76	119	114	0	0	0	0
Lubricants	141	35	0	18	43	0	488	0	384	104	240	207	0	0	25
Wax	0	0	0	0	0	0	13	0	0	0	0	0	0	0	0
Asphalt and Road Oil	0	102	0	182	0	0	310	0	9	301	289	0	0	0	0
Miscellaneous Products	20	17	0	0	0	0	787	0	656	131	95	3	0	0	13
Total	2,552	528	0	673	688	0	27,954	3,350	7,473	17,131	4,025	685	1 654	0	18,296

Note: Total may not equal sum of components due to independent rounding
Source: See Explanatory Notes on Data Collection and Estimation.

Table 28. Net Movements of Crude Oil and Petroleum Products by Pipeline, Tanker and Barge Between PAD Districts, November 1982
(Thousands of Barrels)

Commodity	P.A.D. District I			P.A.D. District II			P.A.D. District III			P.A.D. District IV			P.A.D. District V		
	Receipts into PADD I	Shipments from PADD I	Net Receipts PADD I	Receipts into PADD II	Shipments from PADD II	Net Receipts PADD II	Receipts into PADD III	Shipments from PADD III	Net Receipts PADD III	Receipts into PADD IV	Shipments from PADD IV	Net Receipts PADD IV	Receipts into PADD V	Shipments from PADD V	Net Receipts PADD V
Crude Oil	2,059	0	2,059	1,574	0	1,574	18,248	1,979	16,269	0	0	0	0	19,902	-19,902
Petroleum Products	97,841	9,228	88,613	34,929	11,615	23,314	6,287	121,696	-115,409	2,481	2,700	-219	3,749	48	3,701
Natural Gasoline	0	0	0	1,564	329	1,235	343	1,212	-869	0	366	-366	0	0	0
Unfractionated Stream	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Plant Condensate	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Liquefied Petroleum Gases	2,704	23	2,681	5,913	2,904	3,009	1,828	7,485	-5,657	148	181	-33	0	0	0
Unfinished Oils	1,314	351	963	0	0	0	351	1,314	-963	0	0	0	0	0	0
Motor Gasoline Blending Components	0	0	0	749	0	749	0	749	-749	0	0	0	0	0	0
Aviation Gasoline Blending Components	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Finished Motor Gasoline	50,692	5,544	45,148	17,622	5,108	12,514	2,029	61,730	-59,701	1,552	1,347	205	1,834	0	1,834
Finished Leaded Motor Gasoline	23,260	3,049	20,211	9,064	2,627	6,437	1,132	28,859	-27,727	876	1,037	-161	1,240	0	1,240
Finished Unleaded Motor Gasoline	27,432	2,495	24,937	8,558	2,481	6,077	897	32,871	-31,974	676	310	366	594	0	594
Gasohol	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Finished Aviation Gasoline	168	10	158	130	9	121	0	288	-288	9	0	9	0	0	0
Naphtha-Type Jet Fuel	715	172	543	257	68	189	68	936	-868	0	192	-192	328	0	328
Kerosene-Type Jet Fuel	10,675	233	10,442	2,341	811	1,530	52	12,830	-12,778	633	55	578	228	0	228
Kerosene	1,310	87	1,223	146	0	146	0	1,369	-1,369	0	0	0	0	0	0
Distillate Fuel Oil	25,268	2,479	22,789	5,045	1,396	3,649	891	27,583	-26,692	139	559	-420	674	0	674
Distillate Fuel Oil Less No. 4	24,925	2,479	22,446	5,045	1,251	3,794	746	27,240	-26,494	139	559	-420	674	0	674
No. 4 Fuel Oil	343	0	343	0	145	-145	145	343	-198	0	0	0	0	0	0
Residual Fuel Oil	2,859	0	2,859	152	635	-483	457	3,308	-2,851	0	0	0	475	0	475
Naphtha and Other Oils for Petro.															
Feedstock Use	63	14	49	79	32	47	33	119	-86	0	0	0	0	10	-10
Special Naphthas	203	0	203	114	8	105	0	309	-309	0	0	0	0	0	0
Lubricants	506	176	330	381	61	320	103	935	-832	0	0	0	207	25	182
Wax	13	0	13	0	0	0	0	13	-13	0	0	0	0	0	0
Asphalt and Road Oil	492	102	390	289	182	107	102	599	-497	0	0	0	0	0	0
Miscellaneous Products	859	37	822	147	72	75	30	917	-887	0	0	0	3	13	-10
Total All Products	99,900	9,228	90,672	36,503	11,615	24,888	24,535	123,675	-99,140	2,481	2,700	-219	3,749	19,950	-16,201

Note: Total may not equal sum of components due to independent rounding.

Sources: See Explanatory Notes on Data Collection and Estimation.

Table 29. Production of No.4 Fuel Oil and Residual Fuel Oil By Sulfur Content, November 1982
(Thousands of Barrels)

Commodity	PAD District I			PAD District II					PAD District III					PAD District IV		United States	
	East Coast	Appalachian #1	Total	Appalachian #2	Ind., Ill., Ky.	Minn., Wisc., Dak.	Okla., Kans., Mo.	Total	Texas Inland	Texas Gulf Coast	La. Gulf Coast		No. La. Ark.	New Mexico	Total		
											Floppy Mt.	Dist. V West Coast					
No. 4 Fuel Oil																	
0.00 to 0.30% Sulfur	0	2	2	0	33	0	0	33	25	15	328	67	240	675	23	81	814
0.31 to 0.50% Sulfur	0	2	2	0	0	0	0	0	0	15	26	1	0	42	0	0	44
0.51 to 1.00% Sulfur	0	0	0	0	0	0	0	0	22	0	0	0	0	22	23	0	45
1.01 to 2.00% Sulfur	0	0	0	0	10	0	0	10	3	0	16	2	240	261	0	32	303
Greater Than 2.00% Sulfur	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	1
Residual Fuel Oil																	
0.00 to 0.30% Sulfur	3,935	115	4,050	116	1,801	343	433	2,693	720	6,648	5,786	253	77	13,484	353	9,088	29,668
0.31 to 0.50% Sulfur	370	25	395	0	16	5	0	21	141	370	92	132	8	743	26	203	1,388
0.51 to 1.00% Sulfur	721	0	721	0	40	0	126	166	29	241	93	-106	0	257	138	858	2,140
1.01 to 2.00% Sulfur	1,737	0	1,737	116	633	0	171	920	421	1,970	823	112	5	3,331	86	1,346	7,420
Greater Than 2.00% Sulfur	383	90	473	0	632	127	112	871	76	560	1,162	20	64	1,882	81	6,125	9,432
	724	0	724	0	480	211	24	715	53	3,507	3,616	95	0	7,271	22	556	9,288

Note: Total may not equal sum of components due to independent rounding.
Source: See Explanatory Material.

Note: Total may not equal sum of components due to independent rounding.

Source: See Explanatory Notes on Data Collection and Estimation.

Table 30. Stocks of No.4 Fuel Oil and Residual Fuel Oil By Sulfur Content, November 1982
(Thousands of Barrels)

Commodity	PAD District I			PAD District II						PAD District III				PAD District IV			United States
	East Coast	Appalachian #1	Total	Appalachian #2	Ill., Ky	Ind., Wisc., Daks.	Minn., Kans., Mo.	Total	Texas Inland	Texas Gulf Coast	La. Gulf Coast	No. La., Ark.	New Mexico	Total	Rocky Mts.	Dist. V West Coast	
No. 4 Fuel Oil - 0.00 to 0.30% Sulfur																	
Refinery	0	4	4	0	0	0	0	0	0	0	1	57	4	0	62	0	66
Bulk Terminal	644	0	644	0	0	0	0	0	0	0	0	0	0	0	0	0	644
Total	644	4	648	0	0	0	0	0	0	0	1	57	4	0	62	0	710
No.4 Fuel Oil - 0.31 to 0.50% Sulfur																	
Refinery	0	0	0	0	9	0	0	9	9	0	0	1	0	0	10	1	22
Bulk Terminal	71	0	71	0	0	0	0	0	0	0	0	1	0	0	1	0	72
Total	71	0	71	0	9	0	0	9	9	0	0	2	0	0	11	1	94
No. 4 Fuel Oil - 0.51 to 1.00% Sulfur																	
Refinery	0	0	0	0	19	0	0	19	30	229	38	3	67	367	0	20	406
Bulk Terminal	682	0	682	0	28	0	0	28	0	0	0	0	0	0	0	0	710
Total	682	0	682	0	47	0	0	47	30	229	38	3	67	367	0	20	1,116
No. 4 Fuel Oil - 1.01 to 2.00% Sulfur																	
Refinery	0	0	0	0	0	0	0	0	5	0	0	0	0	5	0	4	9
Bulk Terminal	433	0	433	0	0	0	0	0	0	0	0	0	0	0	0	36	469
Total	433	0	433	0	0	0	0	0	5	0	0	0	0	5	0	40	478
No.4 Fuel Oil - Greater Than 2.00% Sulfur																	
Refinery	0	0	0	0	0	0	0	0	0	0	159	65	19	0	224	19	243
Bulk Terminal	65	3	68	9	0	0	0	9	52	0	0	0	0	52	0	0	129
Total	65	3	68	9	0	0	0	9	52	0	159	65	19	276	0	19	372
Residual Fuel Oil - 0.00 to 0.30% Sulfur																	
Refinery	391	32	423	0	4	0	6	10	117	107	86	19	13	342	105	341	1,221
Bulk Terminal	5,704	0	5,704	0	25	0	0	25	0	0	2,016	3	0	2,019	0	0	7,748
Total	6,095	32	6,127	0	29	0	6	35	117	107	2,102	22	13	2,361	105	341	8,969
Residual Fuel Oil - 0.31 to 0.50% Sulfur																	
Refinery	691	3	694	0	105	0	12	117	6	295	65	61	0	427	46	1,072	2,356
Bulk Terminal	2,800	0	2,800	0	91	0	0	91	0	125	38	0	0	163	0	0	3,064
Total	3,491	3	3,494	0	196	0	12	208	6	420	103	61	0	590	46	1,072	5,410
Residual Fuel Oil - 0.51 to 1.00% Sulfur																	
Refinery	1,166	0	1,166	110	828	0	55	993	191	1,470	1,085	87	4	2,837	134	1,242	6,372
Bulk Terminal	7,920	183	8,103	80	643	11	46	780	106	393	105	0	0	604	0	395	9,882
Total	9,086	183	9,269	190	1,471	11	101	1,773	297	1,863	1,190	87	4	3,441	134	1,637	16,254
Residual Fuel Oil - 1.01 to 2.00% Sulfur																	
Refinery	871	87	958	0	604	136	64	806	59	583	675	10	39	1,366	54	3,448	6,632
Bulk Terminal	3,592	332	3,924	136	358	63	451	1,008	0	602	113	0	0	715	0	749	6,396
Total	4,463	419	4,882	136	962	201	515	1,814	59	1,185	788	10	39	2,081	54	4,197	13,028
Residual Fuel Oil - Greater than 2.00% Sulfur																	
Refinery	1,170	0	1,170	0	588	157	17	762	37	3,056	2,225	104	0	5,422	174	551	8,079
Bulk Terminal	11,941	86	12,027	0	177	75	152	404	203	1,159	861	22	0	2,245	0	592	14,668
Total	12,511	86	12,597	0	765	232	169	1,166	240	4,215	3,086	126	0	7,667	174	1,143	22,747
Residual Fuel Oil - Sulfur Content Not Specified																	
Pipeline	0	0	0	0	0	0	0	0	0	1	0	0	0	1	0	22	23
Total	0	0	0	0	0	0	0	0	0	1	0	0	0	1	0	22	23

Note: Total may not equal sum of components due to independent rounding.
Sources: See Explanatory Notes on Data Collection and Estimation.

Table 31. Imports of Residual Fuel Oil by Sulfur Content by Country of Origin, November 1982
(Thousands of Barrels)

Country	Residual Fuel Oil						Total
	0.00 to 0.30%	0.31 to 0.50%	0.51 to 1.00%	1.01 to 2.00%	Greater Than 2.00%	Not Specified	
Arab OPEC							
Algeria	2,505	0	0	0	0	0	2,505
Iraq	0	0	0	0	0	0	0
Kuwait	0	0	0	0	0	0	0
Libya	216	162	0	0	0	0	378
Qatar	0	0	0	0	0	0	0
Saudi Arabia	0	0	0	0	0	0	0
United Arab Emirates	0	0	0	0	0	0	0
Subtotal Arab OPEC	2,721	162	0	0	0	0	2,883
Other OPEC							
Ecuador	0	0	0	189	0	0	189
Gabon	0	0	0	0	0	0	0
Indonesia	0	10	0	21	0	0	30
Iran	0	0	0	0	0	0	0
Nigeria	182	0	0	0	0	0	182
Venezuela	1,399	0	220	163	4,429	0	6,211
Subtotal Other OPEC	1,581	10	220	372	4,429	0	6,612
Other							
Angola	0	0	0	0	0	0	0
Australia	0	0	0	0	0	0	0
Bahamas	0	0	0	0	96	0	96
Bolivia	0	0	0	0	0	0	0
Brazil	680	0	683	0	0	0	1,343
Brunei	0	0	0	0	0	0	0
Canada	166	0	557	45	39	0	808
Egypt	0	0	0	0	0	0	0
France	0	0	0	0	0	0	0
Ghana	0	150	0	0	0	0	150
Liberia	0	0	0	0	0	0	0
Malaysia	0	0	0	0	0	0	0
Mexico	0	0	0	0	0	0	0
Netherlands	0	0	0	0	0	0	0
Netherlands Antilles	199	0	215	300	4,178	0	4,892
Norway	0	0	0	0	0	0	0
Oman	0	0	0	0	0	0	0
People's Republic of China	0	0	0	0	0	0	0
Peru	0	0	261	0	220	0	481
Puerto Rico	0	0	0	0	0	0	0
Spain	0	0	0	0	0	0	0
Trinidad	0	0	0	404	0	0	404
Tunisia	0	0	0	0	0	0	0
United Kingdom	0	0	215	0	0	0	215
Virgin Islands	452	905	1,563	343	522	0	3,785
Yugoslavia	0	0	0	0	0	0	0
Zaire	0	0	0	0	0	0	0
Other Western Hemisphere							
Other Western Hemisphere	232	200	548	650	0	0	1,630
Other Eastern Hemisphere							
Other Eastern Hemisphere	774	395	796	33	0	0	1,997
Subtotal Other	2,504	1,650	4,818	1,774	5,056	0	15,802
Total Imports	6,806	1,822	5,038	2,147	9,484	0	25,297

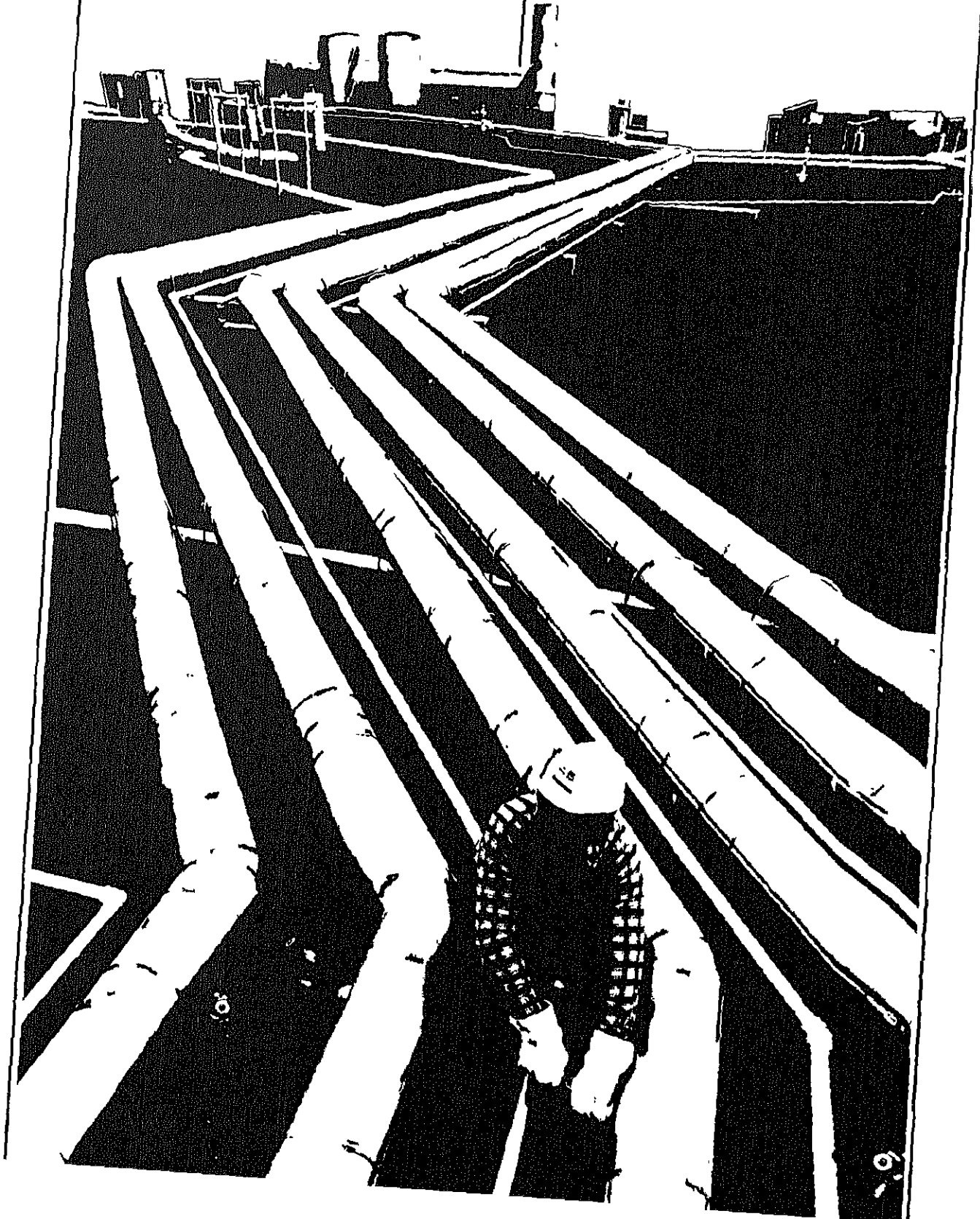
Note: Total may not equal sum of components due to independent rounding.
Sources: See Explanatory Notes on Data Collection and Estimation.

Table 32. Imports of Residual Fuel Oil by Sulfur Content by State of Entry, November 1982
(Thousands of Barrels)

State	Residual Fuel Oil						Total
	0.00 to 0.30%	0.31 to 0.50%	0.51 to 1.00%	1.01 to 2.00%	Greater Than 2.00%	Not Specified	
PAD District I	5,926	1,362	4,418	1,645	9,431	0	22,780
Connecticut	0	0	215	0	0	0	215
Florida	0	0	215	48	1,604	0	1,868
Georgia	0	0	0	0	223	0	223
Maine	0	0	0	0	996	0	996
Maryland	0	0	846	30	364	0	1,239
Massachusetts	0	0	0	72	1,653	0	1,725
New Jersey	1,050	567	280	0	1,513	0	3,410
New York	4,458	575	2,281	812	1,207	0	9,333
North Carolina	0	0	0	347	287	0	634
Pennsylvania	309	220	580	0	93	0	1,202
Rhode Island	0	0	0	189	166	0	355
South Carolina	7	0	0	0	0	0	7
Virginia	102	0	0	146	1,324	0	1,573
PAD District II	115	0	319	41	39	0	514
Michigan	0	0	274	0	0	0	274
Minnesota	50	0	0	0	0	0	50
North Dakota	4	0	0	41	39	0	85
Ohio	60	0	45	0	0	0	105
PAD District III	746	200	301	404	14	0	1,666
Louisiana	2	0	220	404	14	0	640
Texas	744	200	81	0	0	0	1,026
PAD District IV	0	0	0	0	0	0	0
PAD District V	19	260	0	58	0	0	337
Hawaii	2	260	0	53	0	0	316
Oregon	0	0	0	4	0	0	4
Washington	17	0	0	0	0	0	17
All PAD Districts	6,806	1,822	5,038	2,147	9,484	0	25,297

Note: Total may not equal sum of components due to independent rounding.
Sources: See Explanatory Notes on Data Collection and Estimation.

Glossary



Alcohol. The family name of a group of organic chemical compounds composed of carbon, hydrogen and oxygen. The series of molecules vary in chain length and are composed of a hydrocarbon with a hydroxyl group, $\text{CH}(\text{CH}_3)_n\text{OH}$. "Alcohol" includes ethanol and methanol.

Asphalt. A dark-brown-to-black cement-like material, containing bitumens as the predominant constituents, obtained by petroleum processing. The definition includes crude asphalt as well as the following finished products: cements, fluxes, the asphalt content of emulsions (exclusive of water), and petroleum distillates blended with asphalt to make cutback asphalts. The conversion factor is 42-gallon barrels per short ton.

ASTM. The acronym for the American Society for Testing and Materials.

Aviation Gasoline Blending Components. Finished components in the gasoline range which will be used for blending or compounding into finished aviation gasoline.

Aviation Gasoline (Finished). All special grades of gasoline for use in aviation reciprocating engines as given in ASTM Specification D 910 and Military Specification MIL-G-5572.

Barrel. A volumetric unit of measure for crude oil and petroleum products equivalent to 42 U.S. gallons. This measure is used in most statistical reports. Factors for converting petroleum coke, asphalt and wax to barrels are given in the definitions for these products.

Butane. A normally gaseous paraffinic hydrocarbon, C_4H_{10} . It is extracted from natural gas or refinery gas streams. Butane is covered by ASTM Specification D1835 and Gas Processors Association Specification for commercial butane.

- **Normal Butane**—A saturated straight-chain hydrocarbon of butane. It is a colorless paraffinic gas that boils at a temperature of 31.1°F . This classification includes mixtures of gases that contain 80 percent or more normal butane.
- **Other Butanes**—All butanes not included as normal butane or isobutane.

Butane-Propane Mixtures. Mixtures consisting exclusively of butane and propane that conform to ASTM Specification D1835 and Gas Processors Association Specification for commercial butane-propane. They are extracted from natural gas and refinery gas streams.

Butylene. An olefinic hydrocarbon, C_4H_8 , recovered from refinery processes. It is reported in the "Butane" category.

Coal. A generic term applied to carbonaceous rocks that were formed by the partial or complete decomposition of vegetation. These stratified carbonaceous rocks are either solid or brittle and are highly combustible. Includes lignite, bituminous coal, and anthracite which conform to ASTM Specification D 388.

Crude Oil (including Lease Condensate). A mixture of hydrocarbons that existed in liquid phase underground reservoirs and remains liquid at atmospheric pressure after passing through surface separating facilities. Lease condensate is included. Drips are also included, but topped crude (residual oil and other unfinished oils are excluded. Liquids produced at natural gas processing plants and mixtures with crude oil are likewise excluded where identifiable. Crude oil is considered as either domestic or foreign, according to the following:

- **Domestic**—Crude oil produced in the United States or from its outer continental shelf as defined in 43 U.S.C. 1331. Hydrocarbons such as shale oil and tar sand oil are included.
- **Foreign**—Crude oil produced outside the United States. Imported Athabasca hydrocarbons are included.

(including railroad engine fuel and fuel for agricultural machinery), and electric power generation. Included are products known as No. 1 and No. 2 heating oils, No. 1 and No. 2 diesel fuel oils, and No. 4 fuel oil.

- **No. 1 Fuel Oil**—A light distillate fuel oil intended for vaporizing pot-type burners. ASTM Specification D 396 specifies for this grade maximum distillation temperatures of 400° F. at the 10-percent point and 550° F. at the 90-percent point, and kinematic viscosities between 1.4 and 2.2 centistokes at 100° F.

- **No. 2 Fuel Oil**—A distillate fuel oil for domestic heating for use in atomizing-type burners or for moderate capacity commercial-industrial burner units. ASTM Specification D 396 specifies for this grade temperatures at the 90-percent point between 540° and 640° F., and kinematic viscosities between 2.0 and 3.6 centistokes at 100° F.

- **No. 1 and No. 2 Diesel Fuel Oils**—Distillate fuel oils used in compression-ignition engines, as given by ASTM Specification D 975:

1. **No. 1-D**—A volatile distillate fuel oil in the 400° to 550° F. boiling range for engines in service requiring frequent speed and load changes. Type C-B diesel fuel, which is used for city buses and similar operations, is included.

2. **No. 2-D**—A distillate fuel oil of lower volatility in the 540° to 640° F. boiling range for engines in industrial and heavy mobile service. Type R-R diesel fuel for railroad compression-ignition engines and Type T-T for diesel-engine trucks are included.

- **No. 4 Fuel Oil**—A fuel oil for commercial burner installations not equipped with preheating facilities. It is used extensively in industrial plants. This grade is a blend of distillate fuel oil and residual fuel oil stocks that conforms to ASTM Specification D 396 or Federal Specification VV-F-815C; its kinematic viscosity is between 5.8 and 26.4 centistokes at 100° F. Also included is No. 4-D, a fuel oil for low- and medium-speed diesel engines that conforms to ASTM Specification D 975.

Eastern Hemisphere. That half of the earth east of the Atlantic Ocean which includes Europe, Asia, Africa, and Australia. The Hawaiian Foreign Trade Zone is in this hemisphere.

Electric Energy (Purchased). Electricity purchased for refinery operations that is not produced within the refinery complex.

Ethane. A normally gaseous paraffinic hydrocarbon, C_2H_6 , extracted from natural gas and refinery gas streams. "Ethane" includes any product containing 90 percent liquid volume or more ethane.

Ethane-Propane Mixtures. Mixtures of ethane and propane in which neither component is 90 percent or more of the liquid volume. It is extracted for natural gas and refinery gas streams.

Ethylene. An olefinic hydrocarbon, C_2H_4 , recovered from refinery and petrochemical processes. It is reported in the "Ethane" category.

Field Production. Represents crude oil production on leases, natural gas liquids production at natural gas processing plants, and new supply of other hydrocarbons and alcohol.

Gas Well Gas. Natural gas produced from gas wells. Such gas may be either associated gas or non-associated gas.

- **Associated Gas**—Free natural gas in immediate contact, but not in solution, with crude oil in the reservoir.

- **Non-Associated Gas**—Free natural gas not in contact with, nor dissolved in, crude oil in the reservoir.

Imported Crude Oil Burned as Fuel. The amount of foreign crude oil burned as a fuel oil, usually as residual fuel oil, without being processed as such. "Imported crude oil burned as fuel" includes lease condensate and liquid hydrocarbons produced from tar sand oil, gilsonite, and oil shale.

Isobutane. A saturated branch-chain isomer of butane. It is a colorless paraffinic gas that has a boiling point of 10.9° F. This classification includes mixtures of gases that contain 80 percent volume or more isobutane. It is extracted from natural gas and refinery gas streams.

Isopentane. A saturated branch-chain hydrocarbon, C₅H₁₂, obtained by fractionation of gasoline or isomerization of normal pentane.

Kerosene. A petroleum distillate that boils at a temperature between 300° and 550° F., that has a boiling point higher than 100° F. by ASTM Method D 56, that has a gravity range from 40° to 46° API, and has a burning point in the range of 150° to 175° F. It is a clean-burning product suitable for use as an illuminant when burned in wick lamps. Includes grades of kerosene called range oil having properties similar to No. 1 fuel oil, but with a gravity of about 43° API and having a maximum end-point of 572° F. Kerosene is used in space heaters, cook stoves, and water heaters.

Kerosene-Type Jet Fuel. A quality kerosene product with an average gravity of 40.7° API, a 10 percent distillation temperature of 400° F., and an end-point of 572° F. It is covered by Specification D 1655 and Military Specification MIL-T-5624L (Grade JP-5 and JP-8). It is used primarily for commercial turbojet and turboprop aircraft engines.

Lease Condensate. A natural gas liquid recovered from gas well gas (associated and non-associated) by lease separators or natural gas field facilities. Lease condensate consists primarily of pentane and heavier hydrocarbons.

Lease Separator. A surface facility used for separating casinghead gas from produced crude oil and water and separating gas from that portion of associated gas and non-associated gas that liquefies at the temperature and pressure conditions of the separator.

Liquefied Petroleum Gases (LPG). Propane, propylene, butanes, butylene, ethane-propane mixtures, and isobutane produced at refineries or natural gas processing plants, including plants that fractionate raw natural gas plant liquids. Formerly called "Liquefied Gases."

Liquefied Refinery Gases (LRG). Liquefied petroleum gases fractionated from refinery or still bottoms. Through compression and/or refrigeration they are retained in the liquid state. The reported categories are ethane and/or ethylene, propane and/or propylene, butane and/or butylene, butane-propane mixtures, and isobutane. Excludes still gases used for chemical or rubber manufacture which are reported as petrochemical feedstocks and also excludes liquefied gases ready for blending into gasoline which are reported as gasoline blending components. Liquefied refinery gases are reported for use as petrochemical feedstocks, other uses, or both.

Lubricants. A substance used to reduce friction between bearing surfaces. Petroleum lubricants can be produced either from distillates or residues. Other substances may be added to impart or improve certain required properties. "Lubricants" includes all grades of lubricating oils from spindle oil to cylinder oil and those used in greases. The three categories reported are:

- **Bright Stock**—A refined, high viscosity lubricating oil base stock that is usually made from a residuum by a treatment such as deasphalting, acid treatment, or solvent extraction.
- **Neutral**—A distillate lubricating oil base stock with a viscosity that is usually not above 100 Saybolt Universal Seconds (SUS) at 100° F. It is prepared by a treatment such as hydrofining, acid treatment, or solvent extraction.
- **Other**—A lubricating oil base stock used in finished lubricating oils and greases, including black, coastal, and red oils.

Miscellaneous Products. Includes all finished products not classified elsewhere. "Miscellaneous products" include petrolatum, absorption oils, ram-jet fuel, petroleum rocket fuels, synthetic natural gas feedstocks, and other finished products.

Motor Gasoline Blending Components. Finished components in the gasoline range that will be used for blending or compounding into finished motor gasoline. Pool gasoline is included in this category.

Motor Gasoline (Finished). A complex mixture of relatively volatile hydrocarbons, with or without small quantities of additives, that have been blended to form a fuel suitable for use in spark-ignition engines.

engines. Specifications for motor gasoline, as given in ASTM Specification D 439 or Federal Specification VV-G-1690B, include a boiling range of 122° to 158° F. at the 10-percent point to 365° to 374° F. at the 90-percent point and a Reid vapor pressure range from 9 to 15 psi. "Motor gasoline" includes finished leaded gasoline, finished unleaded gasoline, and gasohol. Blendstock is excluded until blending has been completed. Alcohol that is to be used in the blending of gasohol is also excluded.

- **Finished Leaded Gasoline**—Contains more than 0.05 grams of lead per gallon or more than 0.005 grams of phosphorus per gallon. The actual lead content of any given gallon, however, may vary as a function of the size of the producer and company according to specific Environmental Protection Agency waiver provisions. Premium and regular grades are included, depending on the octane rating.
- **Finished Unleaded Gasoline**—Contains up to 0.05 grams of lead per gallon and 0.005 grams of phosphorus per gallon. Premium and regular grades are included, depending on the octane rating.
- **Gasohol**—A blend of alcohol and finished motor gasoline that is no more than 90 percent of finished motor gasoline (leaded or unleaded as described above) and no less than 10 percent or more alcohol (ethanol or methanol).

Motor Gasoline (Total). Includes finished leaded motor gasoline, finished unleaded motor gasoline, motor gasoline blending components, and gasohol.

Naphtha-Type Jet Fuel. A fuel in the heavy naphtha boiling range with an average gravity of 52.8° API and 20 to 90 percent distillation temperatures of 290° to 470° F., meeting Military Specification MIL-T-5624L (Grade JP-4). JP-4 is used for turbojet and turboprop aircraft engines, primarily by the military. This category excludes ram-jet and petroleum rocket fuels, which are included in the "Miscellaneous Products" category.

Natural Gas. A mixture of hydrocarbons and small quantities of various nonhydrocarbons existing in the gaseous phase or in solution with crude oil in underground reservoirs.

Natural Gas Field Facility. A field facility designed to process natural gas produced from more than one lease for the purpose of recovering condensate from a stream of natural gas; however, some field facilities are designed to recover propane, butane, natural gasoline, etc., and to control the quality of natural gas to be marketed.

Natural Gas Plant Liquids. Natural gas liquids recovered from natural gas in gas processing plants, and in some situations, from natural gas field facilities. Natural gas liquids extracted by fractionators are also included. These liquids are defined according to the published specifications of the Gas Processors Association and the American Society for Testing and Materials, and are classified as follows: Ethane, propane, ethane-propane mix, isobutane, butane, butane-propane mix, isopentane, natural gasoline, plant condensate, unfractionated stream, and other products from natural gas processing plants (i.e., products meeting the standards of finished petroleum products produced at natural gas processing plants, such as finished motor gasoline, finished aviation gasoline, special naphthas, kerosene, distillate fuel oil, and miscellaneous products).

Natural Gas Processing Plant. A facility designed to recover natural gas liquids from a stream of natural gas that may or may not have been processed through lease separators or natural gas field facilities. The facility also controls the quality of natural gas to be marketed. Cycling plants are classified as gas processing plants.

Natural Gasoline. A mixture of hydrocarbons, mostly pentanes and heavier, extracted from natural gas, that meets vapor pressure, end-point, and other specifications for natural gasoline set by the Gas Producers Association.

OPEC. The acronym for the Organization of Petroleum Exporting Countries, oil-producing and-exporting countries that have organized for the purpose of negotiating with oil companies on matters of oil production, prices, and future concession rights. Current members are Algeria,, Ecuador, Gabon, Indonesia, Iran, Iraq, Kuwait, Libya, Nigeria, Qatar, Saudi Arabia, United Arab Emirates, and Venezuela.

Operable Distillation Capacity. The maximum amount of input that can be processed by a crude oil distillation unit in a 24-hour period, making allowances for processing limitations due to types and

grades of inputs, limitations of downstream facilities, scheduled and unscheduled downtimes, environmental constraints. Includes any shutdown capacity that could be placed in operation with days.

Other Hydrocarbons. Materials received by a refinery and consumed as raw materials. Includes hydrogen, coal, tar derivatives, gilsonite, and natural gas received by the refinery for reforming hydrogen. Natural gas to be used as fuel is excluded.

Petrochemical Feedstocks. Chemical feedstocks derived from petroleum, principally for the manufacture of synthetic rubber and a variety of plastics. The categories reported are "Naphtha-less 400° F. end-point" and "Other oils over 400° F. end-point."

- **Naphtha less than 400° F. end-point**—A naphtha with an end point of less than 400° F. and that is reported as used as a petrochemical feedstock.
- **Other oils over 400° F. end-point**—Oils with an end point over 400° F. and that are reported as used as a petrochemical feedstock.

Petroleum Coke. A residue, the final product of the condensation process in cracking. This product is reported as marketable coke or catalyst coke. The conversion factor is 5.42-gallon barrels per short ton.

- **Marketable Coke**—Those grades of coke that are produced in delayed or fluid cokers and which may be recovered as relatively pure carbon. This "green" coke may be sold or further purified by calcining.
- **Catalyst Coke**—In many catalytic operations (i.e., catalytic cracking) carbon is deposited on the catalyst, thus deactivating the catalyst. The catalyst is reactivated by burning off the carbon which is used as fuel in the refinery process. This carbon or coke is not recoverable in concentrated form.

Petroleum Products. Petroleum products are obtained from the processing of crude oil (including lease condensate), natural gas, and other hydrocarbon compounds. Petroleum products include unfinished oils, natural gasoline and isopentane, plant condensate, unfractionated stream, ethane, liquefied petroleum gases, aviation gasoline, motor gasoline, naphtha-type jet fuel, kerosene-type jet fuel, kerosene, distillate fuel oil, residual fuel oil, naphtha less than 400° F. end-point, other oils less than 400° F. end-point, special naphthas, lubricants, waxes, petroleum coke, asphalt, road oil, still gas, and miscellaneous products.

Petroleum Refinery. An installation that manufactures finished petroleum products from crude oil, unfinished oils, natural gas plant liquids, other hydrocarbons, and alcohol.

Plant Condensate. One of the natural gas plant liquids, mostly pentanes and heavier hydrocarbons, recovered and separated as liquids at gas inlet separators or scrubbers in processing plants.

Primary Stocks. Stocks of crude oil or petroleum products held in storage at (or in) leases, refinery storage, natural gas processing plants, pipelines, tank farms, and bulk terminals that can store at least 50,000 barrels of petroleum products or that can receive petroleum products by tanker, barge, or pipeline. Crude oil that is in transit from Alaska, or that is stored on Federal leases or in the Strategic Petroleum Reserve is included. "Primary Stocks" excludes stocks of foreign origin that are held in bonded warehouse storage.

Propane. A normally gaseous hydrocarbon, C_3H_8 , extracted from natural gas and refinery gas streams. It is used primarily as a fuel and as a petrochemical feedstock. Propane is covered by ASTM Specification D1835, Gas Processors Association for commercial and HD-5 propane, and ASTM Specification for special duty propane.

Propylene. An olefinic hydrocarbon, C_3H_6 , recovered from refinery and petrochemical processes. It is reported in the "Propane" category.

Residual Fuel Oil. Topped crude of refinery operations. "Residual Fuel Oil" includes No. 5 and No. 6 fuel oils as defined in ASTM Specification D 396 and Federal Specification VV-F-815C; Navy Specification 128 Fuel oil as defined in Military Specification MIL-F-859E including Amendment 2; Bunker C fuel oil. Residual fuel oil is used for the production of electric power, space heating, vessel bunkering, and various industrial purposes. Imports of residual fuel oil include "Imported Crude Oil Burned as Fuel Oil."

Road Oil. Any heavy petroleum oil, including residual asphaltic oils, used as a dust palliative and surface treatment of roads and highways. It is generally produced in six grades; from 0, the most liquid, to 5, the most viscous.

Special Naphthas. All finished products within the gasoline range that are used as paint thinners, cleaners, and solvents. These products are refined to a specified flash point and have a boiling range of 90° to 220° F. "Special naphthas" includes all commercial hexane and cleaning solvents conforming to ASTM Specifications D1836 and D 484, respectively. Naphthas to be blended or marketed as motor gasoline or aviation gasoline or that are to be used as petrochemical and synthetic natural gas (SNG) feedstocks are excluded.

Steam (Purchased). Steam that is purchased for use by a refinery that was not generated from within the refinery complex.

Still Gas (Refinery Gas). Any form or mixture of gas produced in refineries by distillation, cracking, reforming, and other processes. The principal constituents are methane, ethane, ethylene, butane, butylene, propane, propylene, etc. Still gas is reported for petrochemical feedstock use and refinery fuel use.

- **Petrochemical Feedstock Use**—Includes all refinery streams which are used by chemical or rubber manufacturing operations for further processing, less the amount of such streams returned to the source refinery. Finished petrochemical products are not included. For example, polyethylene, butadiene, etc. are considered petrochemical products; therefore, only their feedstock equivalents are included.

- **Fuel Use**—All other still gas.

Strategic Petroleum Reserve (SPR). Stocks (currently, only crude oil) maintained by the Federal Government for use during periods of major supply interruption.

Unfinished Oils. Includes all oils requiring further processing, except those requiring only mechanical blending.

Unfractionated Stream. Mixtures of unsegregated natural gas plant liquid components excluding those included in plant condensate. This product is extracted from natural gas.

Wax. A solid or semi-solid material derived from petroleum distillates or residues by such treatments as chilling, precipitating with a solvent, or de-oiling. It is a light-colored, more-or-less translucent crystalline mass, slightly greasy to the touch, consisting of a mixture of solid hydrocarbons in which the paraffin series predominates. Includes all marketable wax whether crude scale or fully refined. The three grades reported are microcrystalline, crystalline—fully refined, and crystalline—other. The conversion factor is 280 pounds per 42-gallon barrel.

- **Microcrystalline Wax**—Wax extracted from certain petroleum residues having a finer and less apparent crystalline structure than paraffin wax and having the following physical characteristics:

- Penetration at 77° F. (D-1321)—60 maximum.

- Viscosity at 210° F. in Saybolt Universal Seconds (SUS)

- (D-88)—60 SUS (10.22 centistokes) minimum to 150

- SUS (31.8 centistokes) maximum.

- Oil content (D-721)—5 percent minimum.

- **Crystalline-Fully Refined Wax**—A light-colored paraffin wax having the following characteristics:

- Viscosity at 210° F.

- (D-88)—59.9 SUS (10.18 centistokes) maximum.

- Oil Content (D-721)—0.5 percent maximum.

- Other +20 color, Saybolt minimum.

- **Crystalline-Other Wax**—A paraffin wax having the following characteristics:

- Viscosity at 210° F. (D-88)—59.9 SUS (10.18 centistokes) maximum.

- Oil Content (D-721)—0.51 percent minimum to 15 percent maximum.

Western Hemisphere. That half of the earth that includes North and South America and the surrounding waters.

Bureau of Mines Petroleum Refining Districts and PAD Districts

PAD District

Refining District

I

East Coast—District of Columbia and the States of Maine, New Hampshire, Vermont, Massachusetts, Rhode Island, Connecticut, New Jersey, Delaware, Maryland, Virginia, North Carolina, South Carolina, Georgia, Florida, and the following counties of the State of New York: Cayuga, Tompkins, Chemung and all counties east and north thereof. Also the following counties in the State of Pennsylvania: Bradford, Sullivan, Columbia, Montour, Northumberland, Dauphin, York, and all counties east thereof.

Appalachian #1—The State of West Virginia, those parts of the States of Pennsylvania and New York not included in the East Coast District.

Appalachian #2—The following counties of the State of Ohio: Erie, Huron, Crawford, Marion, Delaware, Franklin, Pickaway, Ross, Pike, Scioto, and all counties east thereof.

II

Indiana—Illinois—Kentucky—The States of Indiana, Illinois, Kentucky, Tennessee, Michigan, and that part of the State of Ohio not included in the Appalachian District.

Minnesota—Wisconsin—North and South Dakota—The States of Minnesota, Wisconsin, North Dakota, and South Dakota.

Oklahoma—Kansas—Missouri—The States of Oklahoma, Kansas, Missouri, Nebraska, and Iowa.

Texas Inland—The State of Texas except the Texas Gulf Coast District.

Texas Gulf Coast—The following counties of the State of Texas: Newton, Orange, Jefferson, Jasper, Tyler, Hardin, Liberty, Chambers, Polk, San Jacinto, Montgomery, Harris, Galveston, Waller, Fort Bend, Brazoria, Wharton, Matagorda, Jackson, Victoria, Calhoun, Refugio, Aransas, San Patricio, Nueces, Kleberg, Kenedy, Willacy, and Cameron.

III

Louisiana Gulf Coast—The following Parishes of the State of Louisiana: Vernon, Rapides, Avoyelles, Pointe Coupee, West Feliciana, East Feliciana, Saint Helena, Tangipahoa, Washington, and all Parishes south thereof. Also the following counties of the State of Mississippi: Pearl River, Stone, George, Hancock, Harrison, and Jackson. Also the following counties of the State of Alabama: Mobile and Baldwin.

North Louisiana—Arkansas—The State of Arkansas and those parts of the States of Louisiana, Mississippi, and Alabama not included in the Louisiana Gulf Coast District.

New Mexico—The State of New Mexico.

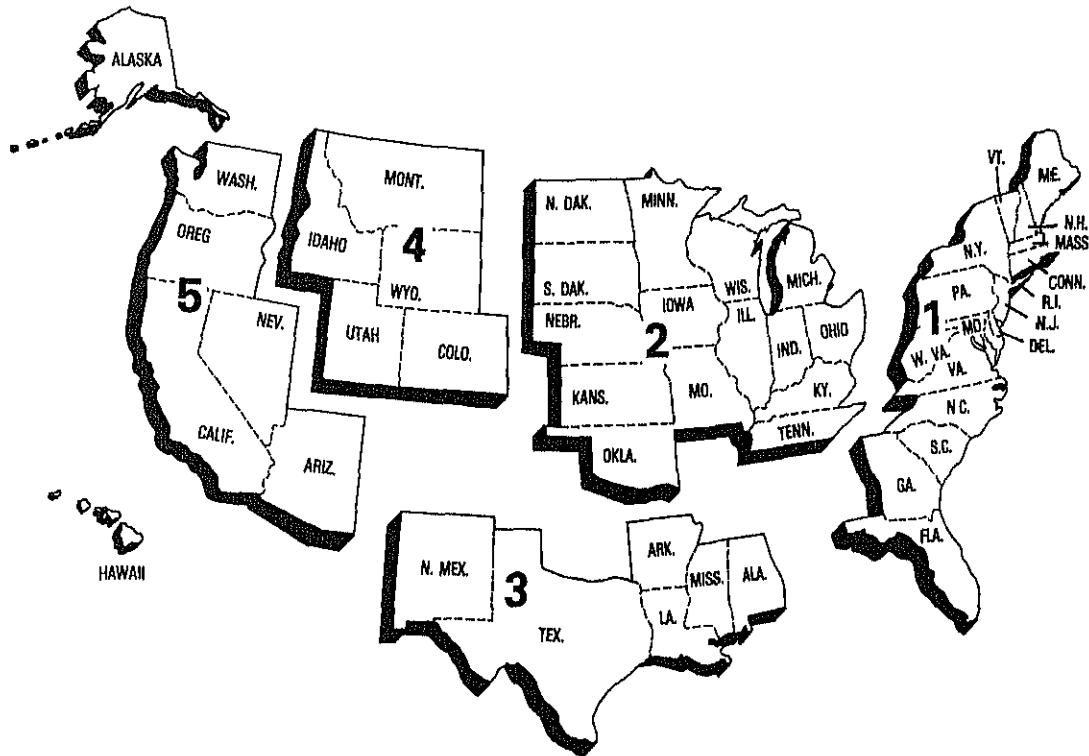
IV

Rocky Mountain—The States of Montana, Idaho, Wyoming, Utah, and Colorado.

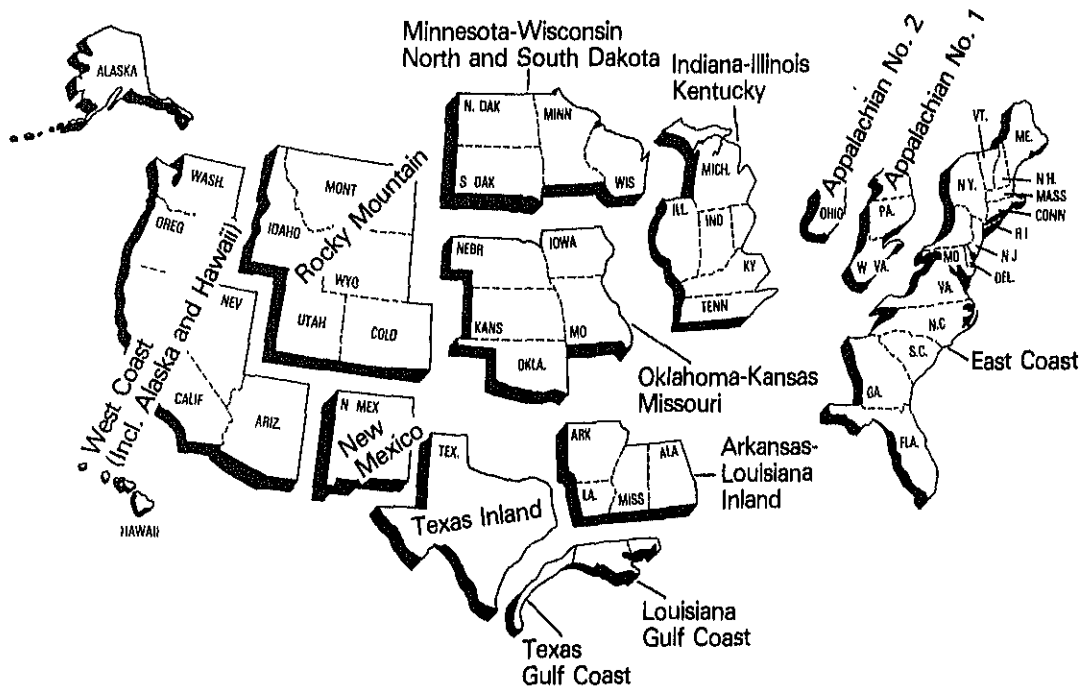
V

West Coast—The States of Washington, Oregon, California, Nevada, Arizona, Alaska, and Hawaii.

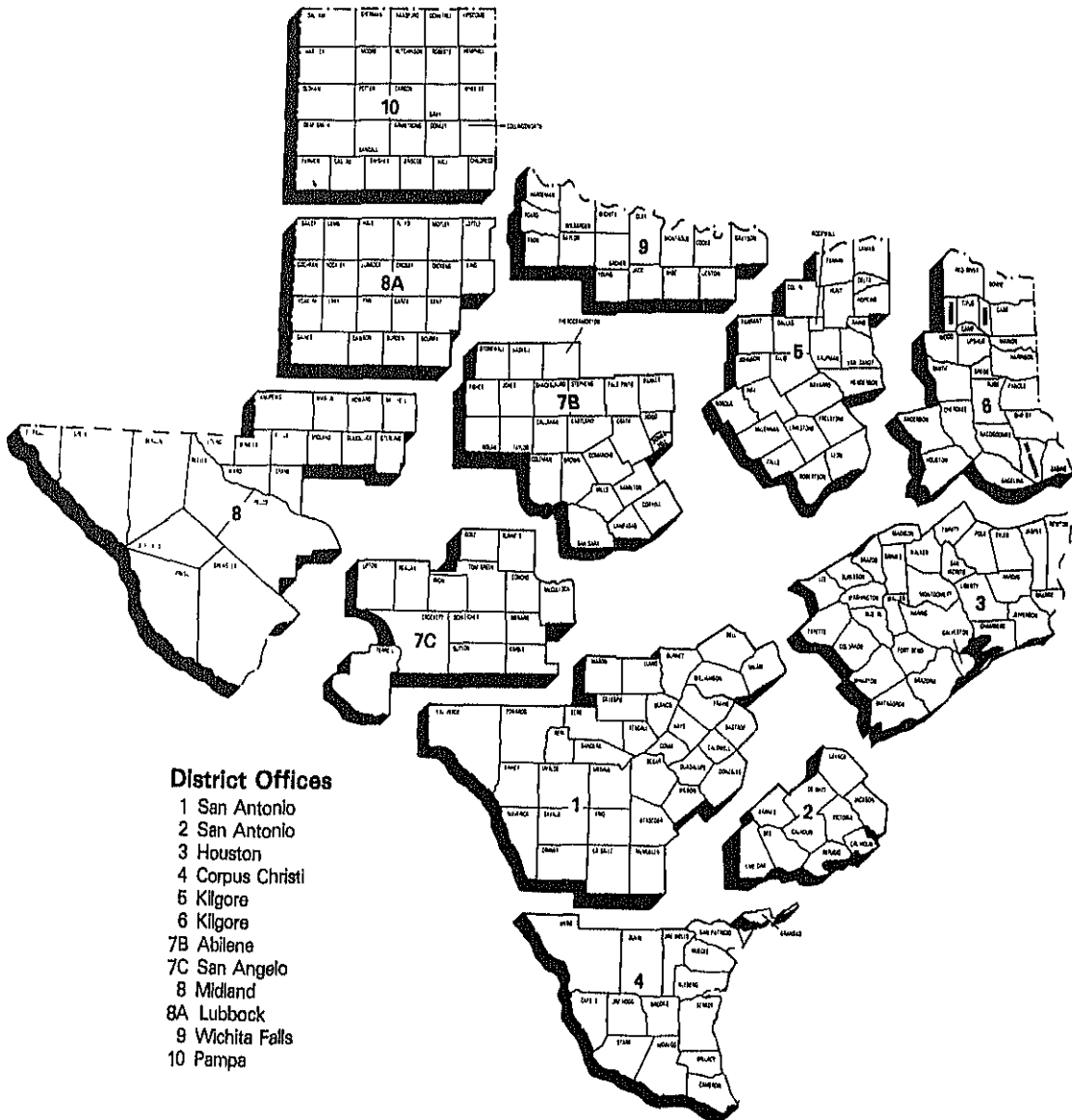
Petroleum Administration for Defense (PAD) Districts



Bureau of Mines Refining Districts



District Map Oil and Gas Division Railroad Commission of Texas



Explanatory Notes



Explanatory Notes

Note 1.1 EIA-64: Natural Gas Liquids Operations Report

Background

The EIA-64, "Natural Gas Liquids Operations Report" evolved from a survey designed and conducted by the United States Geological Survey beginning in 1911. This form collects data on the production and storage of natural gas plant liquids at natural gas processing plants and fractionators.

Description of Survey

Universe

The universe includes all operators of facilities designed to: (1) extract liquid hydrocarbons from natural gas streams (natural gas processing plants); (2) separate a combined products liquid hydrocarbon stream into its component products, i.e. propane, butane, natural gasoline, etc. (fractionators); or (3) store the liquid hydrocarbon output of plants and fractionators.

The mailing list is automated. It is maintained by matching periodically with the *LP Gas Almanac* listings (including supplements) and the *Oil and Gas Journal* Processing Plant Survey listings, and making changes reported by the respondents.

Information Collected

The data are submitted monthly by facility and include all products that the company controls through possession, regardless of ownership. The main items of information collected by the EIA-64 are shown by the example of the form presented below.

Collection Methods

Completed reports are required to be postmarked 20 days following the last day of the report month. Follow-up telephone calls are made to nonrespondents in order to collect data before publication of the aggregated data.

Imputing Missing Data

Imputation is performed only for companies that submitted a report in the previous month. For such companies, previous monthly values are used for current values. The previous month's ending stock value is used for both the current month's beginning stocks and the current month's ending stocks. The value of shipments is adjusted to balance stock level, production, receipts, plant fuel use, and losses. In the event that the previous month's data were estimated, the respondent is contacted and requested to submit estimates, if necessary, to be followed by a resubmission of actual data.

Response Rates

The initial response rate averages 85 percent, with a final response averaging 98 percent as a result of telephone follow-up procedures.

Data Processing

Upon receipt, the reports are reviewed for identification section omissions, duplicate submissions, and identification information changes. The data are then entered and edited. The edit program includes checks for invalid data entry codes, range checks for current-month to previous-month change (absolute and relative), arithmetic calculation errors, line balancing errors, etc. Telephone calls are made to respondents to resolve questions.

Note 1.2 EIA-87, 88, 89 and 90: Joint Petroleum Reporting System

Background

The Joint Petroleum Reporting System (JPRS) comprises four surveys: the "Refinery Report" (EIA-87); the "Bulk Terminal Stocks Report" (EIA-88); the "Pipeline Products Report" (EIA-89); and the

"Crude Oil Stocks Report" (EIA-90). This group of forms collects data on petroleum refinery operation and on storage of crude oil and petroleum products. The origins of JPRS lie in the voluntary petroleum reporting systems instituted by the Bureau of Mines (BOM) soon after it was established as a part of the Department of the Interior in May 1910.

Description of Survey

Universe

The respondent universe of each JPRS survey is defined as follows:

EIA-87: All petroleum refineries and plants producing finished motor gasoline through the mechanical blending of liquids which are operated or controlled in the 50 States, the District of Columbia, Puerto Rico, the Virgin Islands, Hawaiian Foreign Trade Zone, and Guam.

EIA-88: All bulk terminal facilities in the 50 States and the District of Columbia, Puerto Rico, and the Virgin Islands that (a) have total bulk storage capacity of 50,000 barrels or more and/or (b) receive petroleum products by tanker, barge, or pipeline regardless of ownership of the material.

EIA-89: All products pipeline companies that carry petroleum products (including interstate intrastate and intracompany pipelines) in the 50 States and the District of Columbia.

EIA-90: Crude oil pipeline companies (gathering and trunk pipeline companies), crude oil producers, terminal operators, storers of crude oil, and companies transporting Alaskan crude oil by water (in excess of 1,000 barrels), regardless of ownership in the 50 States and the District of Columbia.

The list of respondents is kept current by checking for new respondents in the *Oil and Gas Journal* weekly magazine; newspaper articles; the Office of Resource Applications publication "Trends in Refinery Capacity & Utilization;" the Office of Refinery Operations (ERA) list of U.S. Refiners; and the annual survey EIA-177 "Capacity of Petroleum Refineries."

Information Collected

The main items of information collected by EIA-87, are shown by the example presented below. The EIA-88 and EIA-89 collect data on petroleum product stocks. The EIA-90 collects data on crude oil stocks and crude oil used directly as fuel.

Collection Methods

The data for the JPRS surveys are collected on a monthly basis. Completed forms are required to be postmarked by the 20th day following the report month. Telephone follow-up calls are made to nonrespondents in order to collect data before publication deadline. An automated mailing list is maintained and is used to monitor receipt of the forms.

Imputing Missing Data

Imputation is performed only for companies that submitted a report in the previous month. For these companies, the previous monthly values are used for current values. The previous month's ending stocks value is used for both the current month's beginning stocks and the current month's ending stocks. The value of shipments is adjusted to balance stock level, production receipts, and losses. In the event that previous month's data were estimated, the respondent is contacted and requested to submit estimates if necessary, to be followed by a resubmission of actual data.

Response Rates

As of the filing deadline, the response rate of the JPRS respondents is over 90 percent. All companies that have not responded are contacted by telephone. Although data are taken by telephone to expedite processing, a certified submission is still required. Thirty calendar days after the report month, data for companies that still fail to file the form are estimated based on prior month's data. Names of companies that fail to file for two consecutive months are forwarded to DOE for further noncompliance action. Final response rate is 100 percent.

Report Type **B 0 1** EIA Company Identification No Report Period
Yr Mo.**SECTION 6. REFINERY STOCKS, RECEIPTS, INPUTS, PRODUCTION, SHIPMENTS AND REFINERY FUEL USE AND LOSSES**
(Thousands of Barrels of 42 Gallons)

ITEM DESCRIPTION	PROD UCT CODE	STOCKS BEGINNING OF MONTH	RECEIPTS DURING MONTH	INPUTS DURING MONTH	PRODUCTION DURING MONTH	SHIPMENTS DURING MONTH	REFINERY FUEL USE AND LOSSES DURING MONTH	STOCKS END OF MONTH
		A	B	C	D	E	F	G
Crude oil (incl. lease condensate) Total (sum of codes 010 and 020)	050				X			
Domestic (incl. Alaskan)	010	X		X	X	X	X	X
Foreign	020	X		X	X	X	X	X
Alaskan	011	X		X	X	X	X	X
Products of natural gas proc. plants								
Ethane	110				X			
Propane	231				X			
Ethane-propane mixtures	241				X			
Isobutane	233				X			
Normal butane	235				X			
Other butanes	236				X			
Butane-propane mixtures	234				X			
Natural gasoline and isopentane	220				X			
Plant condensate	210				X			
Unfractionated stream	227				X			
Other hydrocarbons and hydrogen	090				X			
Alcohol	091				X			
Unfinished oils	812							
Gasoline								
Finished leaded motor	132							
Finished unleaded motor	133							
Blending components motor	134							
Gasohol	135							
Finished aviation	111							
Blending components aviation	112							
Special naphthas (solvents)	061							
Jet fuel								
Naphtha type	211							
Kerosene type	213							
Kerosene (incl. range oil)	311							
Distillate fuel oil Less No. 4	412							
No. 4 fuel oil	414							
Residual fuel oil	611							
Lubricating oils								
Bright stock	853							
Neutral	855							
Other	859							
Asphalt	900							
Wax								
Microcrystalline	061							
Crystalline fully refined	071							
Crystalline other	081							
Petroleum coke								
Marketable	021							
Catalyst	022							
Road oil	031							
Still gas								
Petrochemical feedstock use	042							
Other use	044							
Ethane and/or ethylene								
Petrochemical feedstock use	612							
Other use	652							
Propane and/or propylene								
Petrochemical feedstock use	613							
Other use	653							
Butane and/or butylene								
Petrochemical feedstock use	614							
Other use	654							
Butane-propane mixtures								
Petrochemical feedstock use	616							
Other use	656							
Isobutane petrochemical feedstock use	615							
Naphtha - less than 400° end point								
Petrochemical feedstock use	822							
Other oils - over 400° end point								
Petrochemical feedstock use	824							
Other finished products								
Non fuel use	097							
Fuel Use	098							
Overage (Inputs) or shortage (Production)	911		X			X	X	X
TOTAL	999							

Note 1.3 EIA-161, 162, 163, 164 and 165: Weekly Petroleum Reporting System

Background

The Weekly Petroleum Reporting System (WPRS) comprises five surveys: the "Refinery Report" (EIA-161); the "Bulk Terminal Stocks Report" (EIA-162); the "Pipeline Product Stock Report" (EIA-163); the "Crude Oil Stocks Report" (EIA-164); and the "Imports Report" (EIA-165).

The EIA weekly reporting system was designed to collect data similar to those collected under the monthly Joint Petroleum Reporting System (JPRS) (See Note 1.2). In the WPRS, selected petroleum companies report weekly data to EIA on crude oil and petroleum product stocks, refinery inputs and production, and crude oil and petroleum product imports. On the Forms EIA-161 through EIA-164, companies report data on a custody basis. On the Form EIA-165, the importer of record reports each shipment entering the United States. Current weekly data and the most recent monthly data from the JPRS are used to estimate the published weekly totals.

Description of Survey

Universe

The sample of companies that report weekly in the WPRS was selected from the universe of companies that report monthly in either the JPRS system or the ERA-60 system (for imports). All sampled companies report data only for facilities in the 50 States and the District of Columbia.

The sampling frame for each weekly survey is defined as follows:

EIA-161: Uses the EIA-87 universe, which includes all petroleum refineries in the United States and its territories, industrial facilities that have crude oil distillation capacity and produce some refined petroleum products, and bulk terminals that blend motor gasoline.

EIA-162: Uses the EIA-88 universe, which includes all bulk terminal facilities in the United States and its territories that have total bulk storage capacity of 50,000 barrels or more, or that receive petroleum products by tanker, barge, or pipeline.

EIA-163: Based on the EIA-89 universe, which includes all petroleum product pipeline companies in the United States and its territories that transport refined petroleum products, including interstate, intrastate and intracompany pipeline movements. Pipeline companies that only transport natural gas liquids are not included in the EIA-163 frame. Only those pipeline companies which transport products covered in the weekly survey are included.

EIA-164: Uses the EIA-90 universe, which consists of all trunk pipeline companies in the United States and its territories which transport crude oil, all refining companies, all crude oil producers, all terminal operators, and all storers of 1,000 barrels or more of crude oil.

EIA-165: Uses the ERA-60 universe, which includes all importers of record of crude oil and petroleum products into the United States and Puerto Rico.

Sampling

The sampling procedure used for the weekly system is the cut-off method. In the cut-off method, companies are ranked from largest to smallest on the basis of the quantities reported during some previous period. Companies are chosen for the sample beginning with the largest and adding companies until the total sample covers about 90 percent of the total for the previous time period.

Collection Methods

Data are collected by mail, mailgram, telephone, Telex, and Telefax on a weekly basis. All canvassed firms and terminal operating companies must file by 5:00 p.m. on the Monday following the close of the report period, 7 a.m. Friday. During the processing week, company corrections of the prior week's data are also entered.

Formula and Calculations

After the company reports have been checked and entered into the weekly data base, ratio estimates of the weekly totals are calculated from the reported data.

First, the current week's data for a given product reported by companies in that region are summed. (Call this weekly sum, W_s .) Next, the most recent month's data for the product reported by those same companies are summed. (Call this monthly sum, M_s .) Finally, let M_t be the sum of the most recent month's data for the product as reported by *all* companies. Then, the current week's ratio estimate for that product for all companies is given by.

$$W_t = \frac{M_t}{M_s} \circ W_s$$

This procedure is used directly to estimate total weekly inputs to refineries and production.

To estimate stocks of finished products, the preceding procedure is followed separately for refineries, bulk terminals, and pipelines. Total estimates are formed by summing over establishment types.

Weekly imports data are highly variable on a company-by-company basis or a week-by-week basis. Under such conditions, the ratio method is known to result in large errors. Hence, a number of other procedures for estimating weekly imports were considered. The average ratio method was selected for estimating imports because it produces estimates that were close to benchmark values computed from monthly data. Estimates are obtained using the ratio method, but with each company in turn omitted from the sample. These estimates are then averaged to obtain the average ratio estimate.

Imputing Missing Data

The ratio method of estimation automatically imputes for nonresponse. Data from companies that do not respond are excluded from both the weekly and the monthly totals for the sampled companies.

Response Rates

The response rate as of the day after the filing deadline is about 80 percent for the EIA-161; 75 percent for the EIA-162; 95 percent for the EIA-163; 80 percent for the EIA-164; and greater than 95 percent for the EIA-165. However, more forms are received the next day, bringing the final response rates up. Late respondents are contacted by telephone. Nearly all of the major companies report on time. The nonresponse rate for the published estimates is usually between 2 percent and 5 percent.

Note 1.4 EIA-170: Tanker and Barge Shipments of Crude Oil and Petroleum Products Between Districts

Background

The EIA-170 survey collects data for calculation of monthly petroleum supply and disposition figures on U.S. and PAD District levels.

Instrument and Design

This form is designed to collect data on total movements by tanker and barge of crude oil and petroleum products between PAD Districts or between PAD Districts and the Panama Canal, by shipping State and receiving State.

Universe

The respondent universe of the EIA-170 consists of all known companies and plants that have custody of crude oil and petroleum products transported by tanker and barge between PAD Districts or between PAD Districts and the Panama Canal. There are currently about 60 respondents.

Collection Methods

Survey data are collected by mail every month. The filing deadline is the 20th calendar day of the month following the report period. The response rate as of the filing deadline is about 98 percent. Late respondents are contacted by telephone. All responses are processed each month before release of the data for publication.

Note 1.5 ERA-60: Reports of Oil Imports into the United States and Puerto Rico

Background

The "Report of Oil Imports into the United States and Puerto Rico" (ERA-60) survey was designed by the Economic Regulatory Administration (ERA) of the Department of Energy to collect data on port of entry, country of origin, destination, and quantity of imported crude oil and petroleum products, as well as sulfur content and API gravity. All licensed importers and importers of record are required to report. The "Shipments of Refined Products from Puerto Rico to the United States" (P-133-M-O) survey was designed to collect data on imports to the United States that are not covered by the ERA-60.

Universe

The monthly submission of Form ERA-60 and P-133-M-O is required by all licensed importers and importers of record into the United States and Puerto Rico. The respondent universe consisted of approximately 750 firms as of June 30, 1981. The respondent universe for these surveys is updated whenever an import license is granted by the Office of Oil Imports of the ERA.

Collection Methods

The survey data are collected by mail each month. It is mandatory for each respondent to file the ERA-60/P-133-M-O by the 15th working day of the month following the reporting period. Resubmissions are received frequently and are processed when received.

Response Rates

In December 1980, the survey had a response rate of 92 percent by the filing deadline. The universe was 640 at that time. (Because this is a dynamic survey, the universe is constantly changing.) Standard followup of nonrespondents is made to insure that all reports are received, since data are not imputed for nonrespondents. Response rate is generally 98-99% by the time the data are first published. Revised publications are not generated as standard operating procedure. The ERA-60 file is never closed; resubmissions are constantly received and processed.

Note 1.6 Census Import (IM-145) and Export (EM-522 and EM-594) Tabulations

The foreign trade statistics program, conducted by the Bureau of the Census, involves compilation and dissemination of a large body of data relating to the imports and exports of the United States.

Import Statistics

Coverage

The import statistics reflect both government and nongovernment imports of merchandise from foreign countries into the U.S. Customs territory (includes the 50 States, the District of Columbia, and Puerto Rico), without regard to whether or not a commercial transaction is involved. In general, the statistics record the physical movement of merchandise into the United States from foreign countries, with the exception of the following types of transactions that are excluded from the statistics:

1. Merchandise shipped in transit through the United States, when documented with Customs as an intransit movement.
2. Shipments between the United States and Puerto Rico, the Virgin Islands, Guam, American Samoa, and other U.S. possessions; shipments between any of these outlying areas; and imports into U.S. possessions from foreign countries.
3. U.S. merchandise returned by U.S. Armed Forces for their own use.

Source of Import Information

The official U.S. import statistics are compiled by the Bureau of the Census from copies of the import entry and warehouse withdrawal forms that importers are required by law to file with Customs officials (Customs Forms 7501- 7505).

Imported petroleum is reported as "Imports for Consumption." Imports for consumption are a combination of entries for immediate consumption and withdrawals from warehouses for consumption. With certain exceptions as indicated above, these data generally reflect the total of commodities entered into U.S. consumption channels.

Country and Area of Origin

The country reported in the statistics as the country of origin is defined as the country where the merchandise was grown, mined, or manufactured. In instances where the country of origin cannot be determined, the transactions are credited to the country of shipment.

Export Statistics

Coverage

The export statistics reflect both government and nongovernment exports of domestic and foreign merchandise from the U.S. Customs territory (includes the 50 States, the District of Columbia, and Puerto Rico) to foreign countries, without regard to whether or not the exportation involves a commercial transaction. In general, the statistics record the physical movement of merchandise out of the United States to foreign countries, with the exception of the following types of transactions:

1. Shipments between the United States and Puerto Rico, the Virgin Islands, Guam, American Samoa, and other U.S. possessions; between any of these outlying areas; and shipments from U.S. Possessions to foreign countries.
2. Merchandise shipped in transit through the United States from one foreign country to another, when documented as such with U.S. Customs.
3. Bunker fuels and other supplies and equipment for use on departing vessels, planes, or other carriers engaged in foreign trade.

Source of Export Information

The official U.S. export statistics are compiled by the Bureau of the Census primarily from copies of Shipper's Export Declarations. Shipper's Export Declarations are required to be filed with Customs officials, except when qualified exporters have been authorized to submit data in the form of magnetic tape, punched cards, or monthly Shipper's Summary Export Declarations directly to the Bureau of the Census.

Country and Area of Destination

The country of destination is defined as the country of ultimate destination or the country where the goods are to be consumed, further processed, or manufactured, as known to the shipper at the time of exportation. If the shipper does not know the country of ultimate destination, the shipment is credited to the last country to which the shipper knows that the merchandise will be shipped in the same form as it was when exported.

Note 2 Estimation

The geographic coverage of all estimates is the 50 United States and the District of Columbia, including adjacent areas of the outer continental shelf, excluding the Hawaiian Foreign Trade Zone.

Note 2.1 Supply

The components of petroleum supply are field production, refinery production, imports, stock withdrawal or addition, crude oil used directly, and losses.

Field Production is the sum of crude oil (including lease condensate) production, natural gas processing plant production, and new supply (field production) of other liquids used by refineries.

Crude oil production is estimated based on data received from State conservation and revenue agencies. Reports of crude oil production from each of the 31 producing States are not received until several months after the other components of petroleum supply described in Explanatory Note 2.1 are available for publication. For an explanation of the crude oil estimation procedure used until the State reports are complete, see Explanatory Note 2.2.

Field production of natural gas plant liquids (NGPL), including finished petroleum products, is reported monthly on survey Form EIA-64, "Natural Gas Liquids Operation Report." Negative production will occur when the amount of a product produced during the month is less than the amount of that same product that is reprocessed (input) or reclassified to become another product during the same month. For survey description and other detail, see Explanatory Note 1.1.

Field production of natural gas plant liquids (NGPL), including finished petroleum products, is reported monthly on survey Form EIA-64, "Natural Gas Liquids Operations Report." Negative production will occur when the amount of a product produced during the month is less than the amount of that same product that is reprocessed (input) or reclassified to become another product during the same month. For survey description and other detail, see Explanatory Note 1.1.

Refinery Production of LRGs, ethane, and finished petroleum products is reported monthly on survey Form EIA-87, "Refinery Report." Published production of these products equals refinery production minus refinery input. Refinery production of unfinished oils and of motor and aviation gasoline blending components appears on a net basis under refinery input. Negative production will occur when the amount of a product produced during the month is less than the amount of that same product that is reprocessed (input) or reclassified to become another product during the same month.

Refinery production is also reported weekly on survey Form EIA-161, "Refinery Report." See Explanatory Notes 1.2 and 1.3 for survey descriptions and other detail. It should also be noted that refineries do not report production of crude oil, natural gasoline, isopentane, unfractionated stream, plant condensate, or other hydrocarbons and alcohol.

Imports of crude oil and petroleum products are reported monthly on Form ERA-60, "Report of Oil Imports into the United States and Puerto Rico," and Form P-133-M-O, "Shipments of Refined Products (including unfinished oils) from Puerto Rico to the United States." In addition, the Census Bureau Tabulation IM-145 summarizes import data from Customs import declarations reported on Customs Forms 7501 and 7505. The most prominent difference between the EIA and Census systems appears in imports of liquefied petroleum gases (LPG), where Census data show a much higher level of imports than Energy Information Administration data. This occurs because the ERA-60 respondent frame was built by monitoring importers of licensed products and because LPGs are not licensed products. Therefore, respondents that only import LPGs have not been identified, and do not report these imports to the Department of Energy. Since these importers are required to file form 7501 with the U.S. Customs Service, EIA obtains data on imports of LPGs from Census Tabulation IM-145. Additional data taken from the IM-145 are relatively small quantities of naphtha and kerosene-type jet fuels, distillate fuel oils, and residual fuel oils withdrawn from bonded storage for use in international trade and for military offshore use. Even though these duty-free fuels are stored on United States shores, they did not enter the United States for domestic consumption and therefore are not included in the ERA-60 reporting system.

Imports are also reported weekly on survey Form EIA-165, "Imports Report." See Explanatory Notes 1.3, 1.5, and 1.6 for survey descriptions and other detail.

Stock Withdrawal (+) or Addition (-) is calculated by subtracting stocks at the end of the month from stocks at the beginning of the month. (Note: The beginning stocks of one month are equal to the ending stocks of the previous month.) A positive result (+) would represent a withdrawal from stocks and an increase in petroleum supplies distributed for domestic consumption. A negative result (-) would represent a buildup of stocks and reduce petroleum supplies distributed for domestic consumption. For survey forms used to make stock withdrawal or addition calculations see Explanatory Note 2.4.

Unaccounted-for Crude Oil is a balancing item that represents the difference between crude oil supply and disposition. Crude oil supply is the sum of field production, imports and stock withdrawal or addition, less crude used directly and losses. Crude oil disposition is the sum of exports and refinery input.

Unaccounted-for crude oil is calculated by subtracting crude oil supplies from crude oil disposition. A negative result indicates that refiners and exporters reported use of more crude oil than was reported to have been available to them. (This occurs, for example, when imports are undercounted due to late reporting or other problems.) A negative result would indicate that more crude oil was reported to have been supplied to refiners and exporters than they reported used. This calculation is performed for crude oil to ensure that product supplied for crude oil is always zero.

Crude Oil Used Directly and Losses is the sum of crude oil losses at refineries, crude oil burned at refineries, and crude oil burned on leases. Crude oil losses and consumption at refineries are reported on Form EIA-87, "Refinery Report." Crude oil burned on leases is reported on Form EIA-90, "Crude Oil Stocks Report." Crude oil burned on leases is divided into two categories: crude burned as residual fuel oil and crude burned as distillate fuel oil. Crude burned on leases appears as a negative supply to crude oil (a reduction in crude oil supplies) and as a positive supply to residual and distillate fuel oil (an increase to these supplies).

Note 2.2: Domestic Crude Oil Production

Data for the Crude Oil Production System (COPS) are reported to the Department of Energy by each of the individual State conservation agencies, which collect crude oil production values for tax purposes. In addition, the U.S. Geological Survey reports the volume of crude oil that is produced offshore in Federally-owned waters. With the exception of six State conservation agencies, all of these reports are received monthly. After each calendar year, these monthly numbers are updated using the annual reports from the State conservation agencies and the U.S. Geological Survey. The six States that do not report monthly values are Indiana, New York, Ohio, Pennsylvania, West Virginia, and Wyoming. Monthly values are estimated for these States using the individual linear trends of their historical annual crude oil production values.

There is a time lag of approximately 3 to 4 months between the end of the reporting month and the time when the actual values are available for this publication. In order to provide more timely crude oil production estimates, the Department of Energy has established a series of statistical models that forecast the volume of crude oil production based on the historical production patterns. The models use Auto Regressive Integrated Moving Average (ARIMA) to analyze series of monthly crude oil production values collected over several years.

In order to provide detailed crude oil production information on both the PAD District level and for the major producing States, the total United States crude oil production volume was separated into nine distinct groupings. The nine different time series are the monthly reported crude oil production volumes for: (1) all the States in PAD District 1; (2) all the states in PAD District 2; (3) Texas; (4) Louisiana; (5) the States in PAD District 3 excluding Texas and Louisiana; (6) all the States in PAD District 4; (7) Alaska; (8) California; and (9) the States in PAD District 5 excluding Alaska and California. Monthly data collected beginning in January 1973 are used for each of these time series.

A separate ARIMA model is identified for each time series. New model parameters are estimated monthly for each of these nine updated time series. Then, these ARIMA models are used to forecast crude oil production volumes for the month of interest. These values are then aggregated into PAD District and national totals. The forecasts made during 1981 had an average error of less than 0.6 percent compared to the monthly crude oil production volumes eventually reported by the States.

Note 2.3 Disposition

The components of petroleum disposition are refinery input, exports, and products supplied for domestic consumption.

Refinery Inputs of crude oil, NGPL and other liquids are reported monthly on survey Form EIA-87, "Refinery Report." Published inputs of unfinished oils, and motor and aviation gasoline blending components, equal refinery input minus refinery output. Refinery inputs of finished petroleum products are reported on a net basis under refinery production. Refinery inputs are also reported weekly on survey Form EIA-161, "Refinery Report." See Explanatory Notes 1.2 and 1.3 for survey description and other details.

Exports of crude oil and petroleum products are compiled from Census Bureau tabulations EM522 and EM594. Exports include crude oil shipments to Puerto Rico, the Virgin Islands, and the Hawaiian Foreign Trade Zone, which are obtained from refinery receipts reported on Form EIA-87.

Product supplied for each product is calculated by summing field production plus refinery production, plus imports, plus stock withdrawal or minus stock addition, plus crude oil used directly and losses (plus net receipts when calculated on a PAD District basis), minus refinery input, minus exports. This formula ensures that total disposition equals total supply. Products supplied indicates those quantities of petroleum products supplied for domestic consumption. Occasionally, the result for a product is negative when total disposition of that product exceeds total supply. Negative product supplied may occur for a number of reasons: (1) product reclassification has not been reported, (2) misreporting or delayed reporting of data, and (3) for calculations on a PAD District basis, incomplete coverage of interdistrict movements data compiled to calculate net receipts.

Note 2.4 Stocks

Primary stocks of crude oil are the sum of ending stocks reported monthly on Form EIA-87, "Refinery Report," and Form EIA-90, "Crude Oil Stocks Report." Crude oil held in the Strategic Petroleum Reserve is included unless otherwise noted. Alaskan crude oil in transit is also included. Stocks of crude oil are also reported weekly on Form 161, "Refinery Report," and Form EIA-164, "Crude Oil Stocks Report." Primary stocks of petroleum products are summed from data reported on the Form EIA-64, "Natural Gas Liquids Operations Report," Form EIA-87, "Refinery Report," Form EIA-88, "Bulk Terminal Stocks Report," and Form EIA-89, "Pipeline Products Stocks Report." Primary stocks of petroleum products do not include secondary stocks held by dealers and jobbers, or stocks held by consumers. Petroleum product stocks are also reported weekly on Form EIA-161, "Refinery Report," Form EIA-162, "Bulk Terminal Stocks Report," and Form EIA-163, "Pipeline Products Stocks Report." For survey descriptions and other details see Explanatory Notes 1.1, 1.2, and 1.3.

Note 2.5 Average Stock Levels

The graphs displaying monthly stock levels of petroleum products, crude oil, motor gasoline, distillate fuel oil, residual fuel oil, liquified petroleum gases and ethane, and other products provide the user with recent data as well as a summary of data from the most recent 3 year period from January through December or from July through June. This summary takes the form of an "average range" that includes seasonal variation determined from a longer time period. The average range represents the historical pattern; it is not a forecast.

These curves are updated every 6 months effective January 1 or July 1 by basing the "average ranges" on a more recent time period. At that time, each 3-year data series will be adjusted by dropping the first 6 months and including the most recent 6 months.

For each data series, the monthly seasonal factors were estimated by means of a seasonal adjustment technique developed at the Bureau of Census (Census X-11). The seasonal factors were assumed to be stable (i.e., unchanging from year to year) and additive (i.e., the series is deseasonalized by subtracting the seasonal factor for the appropriate month from the reported stock levels). The intent of deseasonalization is to remove only seasonal variation from the data. Thus, a deseasonalized series would contain the same trends and irregularities as the original data. For crude oil stocks, the derived seasonal factors were very small relative to crude oil stock levels. Therefore, the seasonal factors for crude oil stock levels were set to zero. The seasonal factors for total petroleum (crude and products), distillate fuel oil, residual fuel oil, liquefied petroleum gases and ethane, and other products were derived using monthly data from 1974-1980. For motor gasoline, the seasonal factors were based on monthly data from 1975, 1976, 1978, 1979 and 1980. In 1977, there was virtually no seasonal behavior in motor gasoline stocks. Monthly stock levels stayed at the same high level for the entire year. In addition, the seasonal patterns in 1973 and 1974 appeared to be different from those in recent years. It was therefore assumed that the seasonal patterns in 1973, 1974, and 1977 were not representative of the recent past, and these years were not used in the determination of seasonal patterns for motor gasoline stocks. Because of these differences in the year-to-year seasonal fluctuation of motor gasoline, the evidence for the illustrated seasonal patterns for total petroleum (crude and products), crude oil, distillate fuel oil, residual fuel oil, liquefied petroleum gases and ethane, and other products is stronger than is the evidence for the illustrated seasonal patterns for motor gasoline.

In some cases, these seasonal patterns do not show a smooth transition from month to month. For example, the June factor for residual fuel oil is slightly less than the May and July values, making a bump in the curve. As there is little difference in the magnitude of these seasonal factors, it is possible that this variation is due to the small number of observations (7 years) and the data variability.

After seasonal factors are derived, the most recent 3 year period (from January through December or from July through June) is deseasonalized. The average of the deseasonalized 36-month series determines the midpoint of the deseasonalized average band. The standard error of the deseasonalized 36 months is calculated adjusting for extreme data points. The width of the "average range" is twice this standard error.

The upper curve of the "average range" is defined as the average plus the seasonal factors plus the standard error. The lower curve is defined as the average plus the seasonal factors minus the standard error.

Note 2.6 Movements

Movements of crude oil between PAD Districts are reported on Form EIA-170, "Tanker and Barge Report." Petroleum product movements are reported on Forms EIA-170 and EIA-89, "Pipeline Products Report." Net receipts are calculated by summing total movements into and total movements from each PAD District by pipelines, tankers, and barges, and subtracting for the difference. Movements of crude oil by pipeline are not reported. For survey descriptions and other detail, see Explanatory Notes 1.2 and 1.4.

Note 2.7 Preliminary Monthly Statistics

Data from the Weekly Petroleum Reporting System (Forms EIA-161, 162, 163, 164 and 165) are used to estimate the most recent monthly values for the historical statistics. Since some of the weekly reporting periods overlap 2 adjacent months, it is necessary to use weighting factors in the calculation of the monthly values.

To calculate monthly estimates of crude oil and petroleum product imports, crude oil input to refineries, and production of petroleum products for a specific month, the weekly estimates are weighted by the number of days of that month included in each week, then summed.

End-of-month stock levels of crude oil and the major products (motor gasoline, distillate fuel and residual fuel) are calculated in a similar manner, but use only the two weekly reporting periods that cover the end-of-week stocks before and after the end of the month. The end-of-month stock level is calculated by first calculating the stock change between the 2 weeks. The daily stock change between the two end-of-week stock levels is then calculated. This number is multiplied by the weighting factor of earlier of the 2 weeks (the week that covers the last day of the month of interest). This change is added to the earlier of the two end-of-week stock levels to estimate the end-of-month stock level.

Preliminary monthly estimates of domestic crude oil production are calculated as described in Explanatory Note 2.2.

Note 3 Accuracy of Petroleum Supply Data

Early in 1981, the Energy Information Administration completed an assessment of the accuracy of principal petroleum supply data series. ¹This assessment concentrated on two methods of analysis:

- Comparisons between EIA's final annual estimates published in the *Petroleum Statement Annual (PSA)* and annual estimates from independent sources.

- Comparisons between EIA's final monthly estimates published in the *PSA* and EIA's earlier estimates published in the *Monthly Petroleum Statistics Report* and the *Petroleum Statement, Monthly* (predecessor of the *Monthly Petroleum Statement*).

Selected excerpts from these comparisons are presented below.

Comparisons of Annual Estimates

All of the systems that provide data for the *Petroleum Supply Monthly*, except for the weekly systems, try to collect data from the entire universe of their potential respondents. They do not sample, and have no sampling errors. Inaccuracies in the data still occur because of problems such as incomplete lists of respondents, errors in the responses, and conceptual errors in the design of the data systems. Such inaccuracies are hard to identify and even harder to quantify. Some understanding of the overall accuracy of the estimates can be achieved by comparing estimates derived from independent sources of data, as shown in the following tables. Close agreements among annual estimates from several independent sources support the conclusion that the estimates are accurate, and accuracy in the annual estimates implies accuracy in the monthly estimates that comprise the annual estimates.

Crude Oil Production

Comparisons among independent estimates of annual crude oil and lease condensate production lead to the conclusion that the *PSA* estimates are probably accurate to within 1 percent.

Crude Oil Imports

Comparisons among independent estimates of annual crude oil imports lead to the conclusion that the *PSA* estimates are probably accurate to within 1 percent. This conclusion is supported by a study of EIA and Customs/Census import data performed for EIA.²

Motor Gasoline Supplied

Comparisons among independent estimates of the annual volume of motor gasoline supplied for domestic use show that differences in the estimates grew between 1977 and 1979. By 1979, the EIA estimate of sales by refiners and the Environmental Protection Agency's estimate of production had grown about 5-7 percent larger than the comparable *PSA*, Lundberg, and American Petroleum Institute (API) estimates. Research conducted by EIA in 1979 and 1980³ confirmed that the lower

¹An Assessment of the Accuracy of Principal Data Series of the Energy Information Administration, DOE/EIA-0292, June 1981.

²Maxima Corporation, *Petroleum Imports Reporting Systems, Preliminary Draft*, (Silver Spring, Maryland: February 1980). Prepared for the Office of Energy Information Validation, Energy Information Administration, U.S. Department of Energy, Washington, D.C.

³Office of Energy Information Validation, Energy Information Administration, U.S. Department of Energy, *An Evaluation of Published EIA Gasoline Supply Estimates* (Washington, D.C.: April 1980).

estimates were inaccurate, and identified changes in the petroleum industry that had an adverse effect on the PSA estimate. During 1980, EIA developed and tested improved procedures for collecting petroleum supply data, and implemented them in January 1981. (See Explanatory Note 4.)

Distillate Fuel Oil Supplied

Comparisons among independent estimates of the annual volume of distillate fuel oil supplied for domestic use lead to the conclusion that the PSA estimates are probably accurate to within 1 to 2 percent.

Residual Fuel Oil Supplied

Comparisons among independent estimates of the annual volume of residual fuel oil supplied for domestic use seem to show sizable and consistent differences between the EIA estimates of sales by refiners and the PSA and API estimates. When imports of residual fuel oil by nonrefiners are added to the refiner sales, however, the difference between refiner sales and the PSA estimates are narrowed to within 1 percent. The comparisons therefore lead to the conclusion that the PSA estimates are probably accurate to within 1 to 2 percent.

Comparison of Estimates of the Volume of Crude Oil and Lease Condensate Production, 1977-1979

	Estimated Volume of Production in Millions of 42-U.S. Gallon Barrels ^a			Comparative Estimate as a Percent of the PSA Estimate		
	1979	1978	1977	1979	1978	1977
EIA Estimate from Petroleum Statement Annual ^b	3,121	3,178	3,009	///	///	///
<u>Comparative Estimates</u>						
American Petroleum Institute Estimate from API Monthly Statistical Report ^c	3,130	3,214	3,021	100.3%	101.1%	100.4%
Census Estimate from the Annual Survey of Oil and Gas ^d	—	3,148	3,016	—	99.1%	100.2%
Oil and Gas Journal Estimates ^e of Total Production derived from Monthly Data	3,168	3,165	3,005	101.5%	99.6%	99.9%
EIA Estimate from Annual Survey of Oil and Gas Reserves (EIA-23) ^f	3,102	3,144	3,001	99.4%	98.9%	99.7%
/// = Not applicable						
— = Not available						

^aVolumes are rounded to the nearest million barrels.

^bFrom Table 6 in EIA's *Petroleum Statement Annual*, 1977, 1978, 1979.

^cFrom issues of the American Petroleum Institute's *Monthly Statistical Report*. The annual values were obtained by summing the monthly values for each of the twelve-month periods.

^dFrom Table 1, p.2 of the Bureau of Census' *Annual Survey of Oil and Gas*, 1978.

^eFrom issues of the *Oil and Gas Journal*. Monthly estimates are in thousands of barrels per day. They are converted to millions of barrels by dividing by 1,000 and multiplying by the number of days in the reporting period.

^fFrom EIA's *U.S. Crude Oil and Natural Gas Reserves 1979 Annual Report* (Table 19, p. 33), *1978 Annual Report* (Table 16, p. 20), and *1977 Annual Report* (Table 22, p.36).

Geographic coverage: the 50 United States and District of Columbia with adjacent areas of the Outer Continental shelf.

SOURCE: *An Assessment of the Accuracy of Principal Data Series of the Energy Information Administration*, DOE/EIA-0292.

Comparison of Estimates of the Volume of Crude Oil Imports, 1977-1979

	Volume of Millions of 42-U.S. Gallon Barrels ^a			Comparative Estimates as a Percent of the Primary Estimate		
	1979	1978	1977	1979	1978	1977
EIA Estimate of Receipts at Ports of Entry (ERA-60) from <i>Petroleum Statement, Annual</i> ^b	2,380	2,320	2,414	///	///	///
<u>Comparative Estimates</u>						
American Petroleum Institute Estimate of Receipts as Reported by Refiners ^c	2,346	2,323	2,360	98.6%	100.1%	97.8%
Customs/Census Estimate of Receipts at Ports of Entry (Customs Forms 7501 and 7502) ^d	2,415	2,338	2,431	101.5%	100.8%	100.7%
EIA Estimate of Inputs of Foreign Crude at Refineries (ETA-87) ^e	2,364	2,334	2,431	99.3%	100.6%	100.7%

/// = Not applicable

^aVolumes are rounded to the nearest million barrels.

^bFrom Table 1 in EIA's *Petroleum Statement Annual* 1977, 1978, 1979. This table also includes imports for the Strategic Petroleum Reserve (SPR) which were 7.5 million in 1977, 58.8 million in 1978, and 24.4 million in 1979.

^cEstimate equals the sum of the annual estimate of imports derived from API's *Monthly Statistics Report* (which excludes imports for SPR), and the EIA estimates for imports for the SPR which are listed in footnote b above. The annual estimates from API data are equal to the sum of the API monthly estimates weighted by the number of days in each month.

^dData on imports to Puerto Rico which are included in the source for these estimates have been excluded from these estimates in keeping with the geographic coverage of the table. Data are from computer printouts of the Bureau of Census Report IM-245-X dated April 3, 1980 (1977 and 1978 data) and December 19, 1980 (1979 data).

^eEstimate equals refinery inputs of foreign crude plus (minus) stock increases (decreases) of foreign crude. The data for the computation are published in EIA's *Petroleum Statement, Annuals*. The stock changes (all increases) are derived from data on stocks of crude oil at refineries, bulk terminals, and pipelines as reported on Form EIA-90, plus the increase in the SPR. This estimate excludes crude oil imported and not used as refinery input.

Geographic coverage: the 50 United States and the District of Columbia.

SOURCE: *An Assessment of the Accuracy of Principal Data Series of the Energy Information Administration*, DOE/EIA-0292.

Comparison of Estimates of the Volume of Motor Gasoline Supplied for Domestic Use, 1977-1979

	Volume in Millions of 42-U.S. Gallon Barrels ^a			Volume Supplied as a Percent of the PSA Estimate		
	1979	1978	1977	1979	1978	1977
EIA Estimate from <i>Petroleum Statement Annual</i> ^b	2,573	2,711	2,625	///	///	///
Comparative Estimates						
EIA Estimate of Sales by Refiners (P-306) ^c	2,708	2,792	2,671	105.2%	103.0%	101.8%
Environmental Protection Agency Estimate derived from Production Data ^d	2,766	2,851	2,706	107.5%	105.2%	103.1%
Lundberg Surveys, Inc. Estimate of U.S. Motor Gasoline Sales ^e	2,631	2,746	2,656	102.3%	101.3%	101.2%
American Petroleum Institute Estimate of Deliveries ^f	2,579	2,697	2,612	100.2%	99.5%	99.5%

/// = Not applicable

^aVolumes are rounded to the nearest million 42-U.S. gallon barrels.

^bDerived from Table 2 in EIA's *Petroleum Statement Annual*, 1977, 1978, 1979.

^cDerived from Table 1 of EIA's December issue of *Petroleum Market Shares, Report on Sales of Refined Petroleum Products* 1977, 1978, 1979.

^dThe estimate shown is derived by substituting EIA Domestic Production values with values of domestic production tabulated from the Environmental Protection Agency Bq. Form 3520-2, "Lead Additive Report for Refineries." The EPA production estimates are 2,694 million barrels in 1977, 2,757 in 1978, and 2,648 in 1979 as compared from a summary sheet provided by Mr. Bob Summerhayes of EPA.

^eFrom the mid-June issues of the "National Petroleum News," 1979 and 1980.

^fAPI publishes monthly estimates in thousands of barrels per month of the volume of motor gasoline delivered from primary storage. The initial published monthly estimate is derived from API sources, but in later API publications the estimates are revised using EIA data. The values shown in the table are equal to the sums of the initial published API monthly estimates of motor gasoline multiplied by the number of days per month.

Geographic coverage: the 50 United States and the District of Columbia.

SOURCE: *An Assessment of the Accuracy of Principal Data Series of the Energy Information Administration*, DOE/EIA-0292.

Comparison of Estimates of the Volume of Distillate Fuel Oil (Including Kerosene) Supplied for Domestic Use, 1977-1979

	Volume in Millions of 42-U.S. Gallon Barrels ^a			Volume Supplied as a Percent of the PSA Estimate		
	1979	1978	1977	1979	1978	1977
EIA Estimate from <i>Petroleum Statement Annual</i> ^b	1,269	1,307	1,275	///	///	///
Comparative Estimates						
EIA Estimate of Sales by Refiners (P-306) ^c	1,282	1,275	1,242	101.0%	97.6%	97.4%
American Petroleum Institute Estimate of Deliveries ^d	1,291	1,300	1,277	101.7%	99.5%	100.2%

/// = Not applicable

^aVolumes are rounded to the nearest million 42-U.S. gallon barrels.

^bDerived from Table 2 in EIA's "Petroleum Statement Annual", 1977, 1978, 1979.

^cDerived from Table 1 of EIA's December issue of *Petroleum Market Shares, Report on Sales of Refined Petroleum Products*, 1977, 1978, 1979.

^dAPI publishes monthly estimates in thousands of barrels per month of the volume of distillate and kerosene delivered from primary storage. The initial published monthly estimate is derived from API sources, but in later API publications the estimates are revised using EIA data. The values shown in the table are equal to the sums of the initial published API monthly estimates of distillate and kerosene multiplied by the number of days per month.

Geographic coverage: the 50 United States and the District of Columbia.

SOURCE: *An Assessment of the Accuracy of Principal Data Series of the Energy Information Administration*, DOE/EIA-0292.

Comparison of Estimates of the Volume of Residual Fuel Oil Supplied for Domestic Use, 1977-1979.

	Volume in Millions of 42-U.S. Gallon Barrels ^a			Volume Supplied as a Percent of the PSA Estimates		
	1979	1978	1977	1979	1978	1977
EIA Estimate from <i>Petroleum Statement, Annual</i> ^b	1,024	1,095	1,109	///	///	///
Comparative Estimates						
EIA Estimate of Sales by Refiners (P-306) ^c	796	832	847	80.8%	79.6%	80.1%
American Petroleum Institute Estimate of Deliveries ^d	1,044	1,101	1,114	102.0%	100.5%	100.4%

/// = Not Applicable

^aVolumes are rounded to the nearest million 42-U.S. gallon barrels.

^bDerived From Table 2 in EIA's *Petroleum Statement Annual*, 1977, 1978, 1979. Refinery fuel use, subtracted from the figures in the source referenced below, has been reinstated in these estimates.

^cDerived from Table 1 of EIA's December issue of *Petroleum Market Shares, Report on Sales of Refined Petroleum Products*, 1977, 1978, 1979.

^dAPI publishes monthly estimates in thousands of barrels per month of the volume of residual fuel oil delivered from primary storage. The initial published monthly estimate is derived from API sources, but in later API publications the estimates are revised using EIA data. The values shown in the table are equal to the sums of the initial published API monthly estimates of residual fuel oil multiplied by the number of days per month.

Geographic Coverage: the 50 United States and the District of Columbia.

SOURCE: *An Assessment of the Accuracy of Principal Data Series of the Energy Information Administration*, DOE/EIA-0292.

Comparisons of Monthly Estimates Over Time

Inaccuracies in petroleum data resulting from incomplete or delayed reports from respondents and from data processing errors are usually eliminated from the final PSA estimates. Such inaccuracies can still have important effects on the monthly estimates published in the *Petroleum Supply Monthly* and its predecessors. The following tables compare the initial monthly estimates published in the *Monthly Petroleum Statistics Report* and the *Petroleum Statement, Monthly* with the final monthly estimates published in the PSA. During 1977-1979, the *Monthly Petroleum Statistics Report* was published about 60 days after the end of the reporting month, and the *Petroleum Statement, Monthly* was published about 120-150 days after the end of the reporting month. The tables show that, both in terms of bias and in terms of standard deviation, the later estimates are consistently more accurate than the earlier estimates. In spite of this, the earlier estimates may have been more valuable to users of energy information because of the large difference in timeliness.

For purposes of comparison, the *Petroleum Supply Monthly* is scheduled to be published on about the same time lag as the *Monthly Petroleum Statistics Report*. Caution should be exercised, however, in drawing conclusions from this similarity. The *Petroleum Supply Monthly* uses improved data processing procedures developed and successfully implemented during 1981. In addition, since 1979, EIA has greatly improved the accuracy of its 60-day crude oil production estimates and is making progress in improving the accuracy of its 60-day import estimates.

Initial Monthly Estimates of Production, Stocks, and Imports of Crude Oil As A Percent of EIA's Final Published Estimates ^a
January 1977 - December 1979

	<u>Production During Month</u>		<u>Primary Stocks At End of Month</u>		<u>Imports During Month</u>	
	Mean Percent	Standard Deviation	Mean Percent	Standard Deviation	Mean Percent	Standard Deviation
EIA's Estimates from the <i>Monthly Petroleum Statistics Report</i> ^b	# 98.7%	1.6%	# 98.3%	1.4%	# 95.4%	2.4%
EIA's Estimates from the <i>Petroleum Statement, Monthly</i> ^c	# 99.6%	0.6%	100.0%	0.1%	# 98.4%	1.3%

Initial Monthly Estimates of Products Supplied for Domestic Use as A Percent of EIA's Final Published Estimates ^a
January 1977 - December 1979

	<u>Motor Gasoline</u>		<u>Distillate Fuel Oil</u>		<u>Residual Fuel Oil</u>	
	Mean Percent	Standard Deviation	Mean Percent	Standard Deviation	Mean Percent	Standard Deviation
EIA's Estimates from the <i>Monthly Petroleum Statistics Report</i> ^b	99.9%	1.3%	99.9%	2.3%	# 97.9%	2.7%
EIA's Estimates from the <i>Petroleum Statement, Monthly</i> ^c	100.0%	0.3%	99.7%	0.5%	99.4%	1.2%

Initial Monthly Estimates of End-of-Month Primary Stocks As a Percent of EIA's Final Published Estimates ^a
January 1977 - December 1979

	<u>Motor Gasoline</u>		<u>Distillate Fuel Oil</u>		<u>Residual Fuel Oil</u>	
	Mean Percent	Standard Deviation	Mean Percent	Standard Deviation	Mean Percent	Standard Deviation
EIA's Estimates from the <i>Monthly Petroleum Statistics Report</i> ^b	99.7%	0.8%	99.7%	1.1%	100.1%	0.7%
EIA's Estimates from the <i>Petroleum Statement, Monthly</i> ^c	99.9%	0.2%	100.0%	0.1%	100.1%	0.5%

Represents a difference from 100% found to be statistically significant at the 95% level of confidence (n = 36).

^aFinal monthly estimates are from the "Petroleum Statement, Annual" for 1977, 1978 and 1979. The mean percent is calculated as follows: each preliminary estimate is first expressed as a percent of EIA's final published estimate these are then summed and the sum is divided by the number of estimates. The standard deviation is the square root of the quantity computed by summing the squared deviation of the percents from the mean percent and then dividing by the number of percents.

^bBased on 36 initial estimates appearing in issues dated January 1977 - December 1979.

^cBased on 36 initial estimates appearing in issues dated January 1977 - December 1979.

SOURCE: *An Assessment of the Accuracy of Principal Data Series of the Energy Information Administration*, DOE/EIA-0292.

Note 4 Changes in Petroleum Industry Reporting

Petroleum statistics contained in this report for all years through 1980 were developed using definitions, concepts, reporting procedures and aggregation methods that are consistent with those developed by the U.S. Bureau of Mines. Research conducted by the Energy Information Administration in 1979 and 1980 indicated that changes had occurred in the petroleum industry that were not being adequately reflected in EIA's reporting systems.

EIA reporting forms, definitions, and procedures were modified beginning in January 1981 to describe industry operations more accurately. Unfortunately, empirical information is not available to precisely measure the data shortcomings throughout 1980. However, estimates of the magnitudes of differences in the major data series are described below to form a basis for comparing 1979, 1980, and 1981 data.

Motor Gasoline

Prior to 1979, the EIA product-supplied series for motor gasoline was consistently about 2 percent lower than the Federal Highway Administration (FHWA) gasoline-sales data series, which is derived from State tax receipts. This difference increased to about 4 percent in 1979 and 5 percent in 1980. There are two primary causes for this growing difference. First, refinery operations, particularly the flows of unfinished oils and the redesignation of some finished products, were not being accurately described on the EIA survey forms. Second, a large amount of gasoline was being produced away from refineries at "downstream blending stations" to take advantage of provisions in regulations governing the amount of lead that could be added. These blending stations were not reporting gasoline production to the EIA until the data system was changed in January 1981.

Quantitative estimates of the magnitude of the difference—in EIA's gasoline product supplied data in 1979 and 1980 have been made by the EIA and the American Petroleum Institute (API). The following table provides 1979 and 1980 data as published in the *Petroleum Statement Annual*, as well as EIA and API estimates of "recast" motor gasoline product supplied. EIA recast estimates were based upon preliminary monthly information in the *Monthly Petroleum Statement*. The ranges displayed in the EIA column reflect uncertainty in the estimates. Also shown are the FHWA motor gasoline sales statistics for those years. EIA has recently published a study of the quality of these FHWA data.¹

¹Office of Energy Information Validation, Energy Information Administration, U.S. Department of Energy, *Error Profile of the Motor Fuel Taxation Data used to Establish and Monitor State Emergency Conservation Targets* (Washington, D.C.: December, 1981).

**Finished Motor Gasoline Product Supplied on Old and New Basis
(Thousand Barrels per Day)**

	1979				1980			
	EIA Reported	API Recast	EIA Recast	FHWA ¹	EIA Reported	API Recast	EIA Recast	FHWA ¹
Jan	6,830	7,230	7,084- 7,246	6,984	6,323	6,789	6,630- 6,791	6,672
Feb	7,254	7,496	7,389- 7,568	7,538	6,596	6,983	6,831- 7,003	6,830
Mar	7,229	7,414	7,301- 7,463	7,316	6,406	6,753	6,607- 6,768	6,713
Apr	7,055	7,300	7,187- 7,353	7,375	6,800	7,014	6,886- 7,052	6,981
May	7,213	7,429	7,313- 7,475	7,428	6,729	6,954	6,823- 6,984	7,044
Jun	7,191	7,483	7,350- 7,516	7,441	6,657	6,966	6,824- 6,991	7,049
Jul	6,902	7,241	7,105- 7,266	7,299	6,743	6,973	6,960	7,132
Aug	7,330	7,546	7,426- 7,588	7,619	6,648	6,841	6,828	7,090
Sep	6,881	7,122	7,016- 7,262	7,232	6,510	6,692	6,962	6,685
Nov	6,791	7,068	6,956- 7,122	7,142	6,234	6,507	6,516	6,951
Dec	6,730	7,106	6,966- 7,127	7,064	6,632	6,948	6,936	6,993
Average	7,034	7,302	7,183- 7,347	7,309	6,579	6,882	6,806- 6,889	6,925

¹FHWA gasoline statistics published in their 1979 Table MF-33G, 08-06-80, contain aviation gasoline as well as motor gasoline. Only motor gasoline data are included in published 1980 data. Consequently, the 1979 data shown above were reduced by subtracting aviation gasoline product supplied quantities as published by EIA in the 1979 *Petroleum Statement Annual*. The 1980 FHWA data published in their 1980 Table MF-33GA, August 1981, did not require this adjustment.

Distillate and Residual Fuel Oil

Distillate and residual fuel oil refinery production statistics through 1980 were adjusted to account for an imbalance between unfinished oil supply and disposition. The reported quantities of refinery inputs of unfinished oils typically exceed the available supply of unfinished oils. It has been assumed that this occurs when distillate and residual fuel oil produced by a refinery is shipped to another refinery, where it is treated as unfinished oil. This oil is then reprocessed rather than used or sold as distillate or residual fuel oil.

For many years (including 1980), the difference between unfinished oil disposition and supply was subtracted from distillate and residual fuel oil production to adjust for this discrepancy. Two-thirds of the difference was applied to distillate, and one-third to residual fuel oil.

Beginning in January 1981 this adjustment was discontinued because there was not sufficient empirical evidence to support it. The following table presents distillate and residual fuel oil refinery production in 1980 as published (adjusted) and on the same basis as 1981 statistics are now being completed (unadjusted) to permit comparison between 1980 and 1981 data series. Adjusted distillate and residual fuel oil product supplied volumes differ from the unadjusted volumes by the same amounts as the adjusted and unadjusted production volumes.

Adjusted and Unadjusted Refinery Production, and Unadjusted Product Supplied of Distillate and Residual Fuel Oils, by Month for 1979 and 1980 (Thousand Barrels Per Day)

1979

Month	Distillate Fuel Oil				Residual Fuel Oil			
	Adj. Ref. Prod.	Unadj. Ref. Prod.	Diff.	Unadj. Product Supplied	Adj. Ref. Prod.	Unadj. Ref. Prod.	Diff.	Unadj. Product Supplied
Jan.	3,043	3,108	65	4,646	1,912	1,946	34	3,594
Feb.	2,888	2,945	57	4,869	1,792	1,822	30	3,625
Mar.	3,019	3,026	7	3,671	1,719	1,723	4	3,243
Apr.	2,945	2,978	32	3,048	1,639	1,656	17	2,524
May	3,066	3,093	27	3,025	1,586	1,600	14	2,517
Jun.	3,153	3,187	35	2,743	1,548	1,566	18	2,601
Jul.	3,305	3,344	38	2,601	1,575	1,594	20	2,471
Aug.	3,321	3,359	38	2,799	1,584	1,603	20	2,570
Sep.	3,354	3,306	-48	2,599	1,627	1,602	-25	2,584
Oct.	3,251	3,217	-34	3,085	1,629	1,612	-17	2,523
Nov.	3,239	3,200	-39	3,208	1,736	1,716	-20	2,795
Dec.	3,221	3,238	17	3,725	1,894	1,903	9	3,022
Average	3,152	3,169	16	3,327	1,687	1,695	8	2,834

1980

Month	Distillate Fuel Oil				Residual Fuel Oil			
	Adj. Ref. Prod.	Unadj. Ref. Prod.	Diff.	Unadj. Product Supplied	Adj. Ref. Prod.	Unadj. Ref. Prod.	Diff.	Unadj. Product Supplied
Jan.	3,013	3,093	80	3,794	1,771	1,812	41	3,108
Feb.	2,766	2,888	122	3,834	1,773	1,836	63	3,168
Mar.	2,557	2,690	133	3,312	1,584	1,652	68	2,726
Apr.	2,460	2,554	94	2,729	1,595	1,643	48	2,492
May	2,474	2,610	136	2,538	1,509	1,579	70	2,305
Jun.	2,646	2,721	75	2,392	1,575	1,613	38	2,359
Jul.	2,689	2,783	94	2,343	1,480	1,528	48	2,339
Aug.	2,461	2,582	121	2,258	1,444	1,506	62	2,348
Sep.	2,686	2,726	40	2,627	1,495	1,516	21	2,380
Oct.	2,589	2,650	61	2,981	1,512	1,543	31	2,258
Nov.	2,703	2,823	120	3,069	1,579	1,641	62	2,513
Dec.	2,891	3,052	161	3,776	1,660	1,743	83	2,762
Average	2,661	2,764	103	2,969	1,580	1,634	54	2,562

Total Petroleum Products

The imbalance between the supply and disposition of unfinished oils is now reported as part of the reclassified products (line 39) in the U.S. Petroleum Balance (Table 1). Imbalances between the supply and disposition of gasoline blending components comprise the remainder of the reclassified in Table 1. These imbalances are reported as negative product supplied in the Other Liquids section of the table of Supply and Disposition Statistics (Table 2). Since these changes only involve redistribution of the volumes of gasoline, distillate and residual fuel oil, gasoline blending components, and unfinished oils, the total volume of petroleum products supplied remains unaffected by them.

Note 5 Notes on Tables

5.1 Crude Oil and Petroleum Products Overview statistics on the referenced line appear in Table 4 of the Detailed Statistics, except where noted.

- Crude Oil and Petroleum Products Stock Withdrawal (+) or Addition (-), Petroleum Products Supplied, Total Imports, Crude Oil Imports, Total Exports, and Crude Oil Exports appear as labeled in Table 4. Total Production and Crude Oil Production appear under Field Production in Table 4.

- Natural Gas Plant Production is the sum of Natural Gas Plant Liquids and Finished Petroleum Products Field Production in Table 4.

- Petroleum Products Imports is the sum of Natural Gas Plant Liquids and LRGs, Other Liquids, and Finished Petroleum Products Imports in Table 4.

- Petroleum Products Exports is the sum of Natural Gas Plant Liquids and LRGs, Other Liquids, and Finished Petroleum Products Exports in Table 4.

- Total Crude Oil and Petroleum Products Ending Stocks appear in thousands of barrels in Table 2.

5.2 Crude Oil Supply and Disposition statistics on the referenced line appear in Table 1 of the Detailed Statistics, except where noted.

- Total Domestic Field Production, Alaskan Field Production, SPR Imports, Other Imports (synonymous with Imports Gross Excl. SPR), SPR and Other Primary Stocks Withdrawal (+) or Addition (-), Unaccounted For Crude Oil, Refinery Inputs, and Exports appear as labeled in Table 1.

- SPR Ending Stocks and Other Primary Ending Stocks (synonymous with stocks excluding SPR) appear in thousands of barrels in Table 1.

- Total Crude Oil Ending Stocks appear in thousands of barrels in Table 2.

- Total Imports appear in Table 4.

5.3 Finished Motor Gasoline Supply and Disposition statistics on the referenced line appear in Table 4 of the Detailed Statistics, except where noted.

- Total Production is the sum of Field Production and Refinery Production in Table 4.

- Imports, Stock Withdrawal (+) or Addition (-), Exports, and Product Supplied appear as labeled in Table 4.

- Unleaded Percent of Total Product Supplied represents the ratio of finished unleaded motor gasoline product supplied to total finished motor gasoline product supplied, multiplied by 100 and rounded to the nearest tenth.

- Ending Stocks appear in thousands of barrels in Table 2.

5.4 Distillate and Residual Fuel Oil Supply and Disposition statistics on the referenced lines appear in Table 4 of the Detailed Statistics, except where noted.

- Total Production is the sum of Field Production and Refinery Production in Table 4.

- Imports, Stock Withdrawal (+) or Addition (-), Crude Used Directly, Exports, and Product Supplied appear as labeled in Table 4.

- Ending Stocks appear in thousands of barrels in Table 2.

5.5 Liquefied Petroleum Gases and Ethane statistics represent the aggregation of statistics on ethane, propane, butane, butane-propane mixtures, ethane-propane mixtures, and isobutane. The statistics on the referenced line appear in Table 4 of the Detailed Statistics, except where noted.

- Total Production is the sum of Field Production and Refinery Production in Table 4.
- Imports, Stock Withdrawal (+) or Addition (-), Refinery Inputs, Exports, and Product Supplied appear as labeled in Table 4.
- Ending stocks appear in thousands of barrels in Table 2.

5.6 Other Petroleum Products Supply and Disposition statistics represent the aggregation of statistics on natural gasoline, isopentane, unfractionated stream, plant condensate, other liquids, and all finished petroleum products except finished motor gasoline, distillate fuel oil, and residual fuel oil. The statistics on the referenced line are aggregated from Table 4 of the Detailed Statistics, except where noted.

- Total Production is the aggregated sum of Field Production and Refinery Production in Table 4.
- Imports, Stock Withdrawal (+) or Addition (-), Refinery Inputs, Exports, and Product Supplied are aggregated from Table 4.
- Ending stocks are aggregated from ending stocks in thousands of barrels in Table 2.

Note 5.7 Table 1. U.S. Petroleum Balance

- Lines (1) through (3) of Table 1: Crude oil (including lease condensate) production for "Alaska," "Lower 48 States," and "Total U.S." are calculated by calling the conservation agency in Alaska for Alaskan crude oil production during the month, estimating crude oil production in the United States (see Explanatory Note 2.2), and taking the difference to equal production in the lower 48 states.
- Line (5) of Table 1: SPR imports are reported on Survey Form ERA-60.
- Line (12) of Table 1: "Total Other Sources" equals crude oil stock withdrawal (+) or addition (-) plus unaccounted for crude oil plus crude used as fuel and losses in Table 2.
- Line (14) of Table 1: Natural gas plant liquids (NGPL) "Production" equals field production of natural gas plant liquids (NGPL) plus field production of finished petroleum products in Table 2.
- Line (15) of Table 1: NGPL "Imports" equals the sum of the imports of natural gasoline and isopentane, unfractionated stream, and plant condensate imports in Table 2.
- Line (16) of Table 1: NGPL "Stock Withdrawal (+) or Addition (-)" is equal to the sum of stock withdrawal (+) or addition (-) of natural gasoline and isopentane, unfractionated stream, and plant condensate in Table 2.
- Line (17) of Table 1 equals the sum of lines (14), (15), and (16) of Table 1.
- Line (18) of Table 1: unfinished oils and gasoline blending components "Stock Withdrawal (+) or Addition (-)" equals stock withdrawal (+) or addition (-) for other hydrocarbons and alcohol, for unfinished oils, motor gasoline blending components, and aviation gasoline blending components.
- Line (20) of Table 1: "Other Hydrocarbons and Alcohol New Supply" equals the field production of same in Table 2.
- Line (21) on Table 1: "Refinery Processing Gain" is a balancing item equal to total refinery production minus total refinery input in Table 2.
- Line (22) on Table 1: "Crude Used Directly" equals the sum of crude oil used directly as distillate and residual fuel oils in Table 2.
- Line (23) of Table 1: "Total Other Liquids" equals the sum of lines (18) through (22) of Table 1.
- Line (24) of Table 1: "Total Production of Products" equals crude oil input to refineries plus field production of NGPL and finished petroleum products; plus imports of natural gasoline and isopentane, unfractionated stream, and plant condensate; plus stock withdrawal (+) or addition (-) of natural gasoline and isopentane, unfractionated stream, and plant condensate; plus stock withdrawal (+) or

addition (-) of other hydrocarbons and alcohol, unfinished oils, aviation gasoline blending components, and motor gasoline blending components; plus imports of unfinished oils, aviation gasoline blending components, and motor gasoline blending components; plus field production of other hydrocarbons and alcohol; plus total refinery production; minus total refinery input; plus crude oil used as distillate and residual fuel oils in Table 2.

- Line (25) of Table 1: "Gross Imports of Refined Products" equals imports of LPG and ethane plus imports of finished petroleum products in Table 2.

- Line (26) of Table 1: "Exports of Refined Products" equals exports of LPG and ethane plus exports of finished petroleum products in Table 2.

- Line (27) of Table 1: "Net Imports of Refined Products" equals the difference between lines (25) and (26) of Table (1).

- Line (28) of Table 1: "Total New Supply of Products" equals crude oil input to refineries plus field production of NGPL and finished petroleum products; plus imports of natural gasoline and isopentane, unfractionated stream, and plant condensate; plus stock withdrawal (+) or addition (-) of natural gasoline and isopentane, unfractionated stream, and plant condensate; plus stock withdrawal (+) or addition (-) of other hydrocarbons and alcohol, unfinished oils, aviation gasoline blending components, and motor gasoline blending components; plus imports of unfinished oils, aviation gasoline blending components, and motor gasoline blending components; plus field production of other hydrocarbons and alcohol; plus total refinery production; minus total refinery input; plus crude oil used as distillate and residual fuel oils; plus imports of LPG and ethane and finished petroleum products; minus exports of LPG and ethane and finished petroleum products in Table 2.

- Line (29) of Table 1: "Refined Products Stocks Withdrawal (+) or Addition (-) equals the sum of stock withdrawal (+) or addition (-) for LPG and ethane, and finished petroleum products in Table 2.

- Line (30) of Table 1: "Total Petroleum Products Supplied for Domestic Use" equals total products supplied in Table 2.

- Lines (31) through (37) of Table 1 equal the respective products supplied in Table 2.

- Line (38) of Table 1: "Other Products Supplied" equals the sum of natural gasoline and isopentane, unfractionated stream, plant condensate, aviation gasoline, naphtha < 400 Deg. F for petrochemical feedstock uses, other oils > 400 Deg. F. for petrochemical feedstock use, special naphthas, lubricants, waxes, coke, asphalt, road oil, still gas, and miscellaneous products supplied in Table 2.

- Line (39) of Table 1: "Total Reclassified" is a balancing item equal to the sum of unfinished oils, motor gasoline blending components, and aviation gasoline blending components products supplied in Table 2.

- Line (40) of Table 1: "Total Product Supplied" is equal to total products supplied in Table 2.

- The sum of lines (41) and (42) of Table 1, stocks of "Crude Oil and Lease Condensate (Excluding SPR)" and stocks held by the "Strategic Petroleum Reserve," equals ending stocks of crude oil in Table 2. SPR stocks are reported on Form EIA-90.

- Line (46) of Table 1, stocks of "Refined Products," equals the sum of LPG and ethane and finished petroleum product stocks in Table 2.

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